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THESIS

**APPLYING DETERRENCE STRATEGY TO
AGENTS OF ASYMMETRICAL THREATS**

by

Christopher Ward

September 2014

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**APPLYING DETERRENCE STRATEGY TO AGENTS
OF ASYMMETRICAL THREATS**

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ABSTRACT

Deterrence was quickly dismissed as a possible counterterrorism (CT) strategy after 9/11. With temporal distance from the impact, however, the concept has been given a fresh, in-depth look. The encouraging results brought the policy back to national security strategy, but today deterrence of asymmetrical threats remains largely intractable.

Use of deterrence strategy, beyond the common notion of Cold War deterrence, holds promise for sustainable U.S. CT policy. The implications for U.S. foreign policy of such strategic enactments are likely more satisfactory than those employed in the first decade of the war on terror.

This thesis seeks to explore the possibility of tailored deterrence toward the threat from radical Islamic terrorists, by gauging what is known about the strategy against what is known of the adversary, and determining the most effective path forward.

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LIST OF ACRONYMS AND ABBREVIATIONS

AQAP   al Qaeda in the Arabian Peninsula

COA   course of action
CT   counterterrorism

DARPA   Defense Advanced Research Projects Agency
DO JOC   Deterrence Operations Joint Operating Concept
DOD   Department of Defense

HSPD   Homeland Security Presidential Directive

IDA   Institute for Defense Analysis
IRA   Irish Republican Army

NIPP   National Infrastructure Protection Plan
NSA   non-state actors

QDR   Quadrennial Defense Review
QHSR   Quadrennial Homeland Security Review

START   National Consortium for the Study of Terrorism and Responses to Terrorism

WMD   Weapons of Mass Destruction

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EXECUTIVE SUMMARY

The application of a tailored deterrence policy towards various actors in terrorist networks, as well as individuals along the path of the "lone wolf" is explored in the master's thesis, "Applying Deterrence Strategy to Agents of Asymmetrical Threats." The thesis works off the premises that the United States faces a protracted threat, particularly from radical Islamic terrorists, on a temporal scale similar to that of the Cold War, that "a sustainable, economical, clean, proportionate, and reasonable response to the threat" is in the best interest of the nation, and that although deterrence was a principal sustaining factor in the gradual ending of the Cold War, it was initially dismissed as a possibility in the war on terror as inapplicable. Based on a review of the work of subject matter experts and of national strategies in the post-9/11 decade, however, indications point to the notion that the use of deterrence toward counterterrorism is gaining momentum.

Using a policy analysis based on Bardach's "Eightfold Path," the thesis seeks answer the research question, "How can the United States make better use of deterrence strategies in ongoing counterterrorism efforts?" The policy analysis falls out of an appreciative inquiry into deterrence, counterterrorism, and other applicable strategies. Furthermore, the understanding that deterrence can be constructed in many shades off more than one basic form (denial, punishment) with innumerable applications is central to the argument, as is the need for clear communication of any chosen form, and the importance of credibility of the deferrer towards efficacy.

What is learned is that although a typical early (post-9/11) view of terrorists portrayed them as devoid of things "held dear," which makes them undeterrable, by using the in-depth knowledge of adversaries that has been gained, and understanding the psychology of what motivates the actors, and what they may hope to gain in attacking, the use of tailored deterrence may be promising, if it is found politically palatable. Policymakers may shy away from

such a strategy, which is difficult to test or analyze. However, if designed and implemented with reverence for American values, and held to strict standards to ensure credibility, such is as done with refusing to negotiate with terrorists, deterrence may constitute a valuable part of U.S. counterterrorism policy.

ACKNOWLEDGMENTS

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I.   INTRODUCTION

A.   PROBLEM SPACE

Despite the desire by some to write al Qaeda's obituary and the general weariness from a decade of ratcheted defenses and protracted offensives, the United States continues to be threatened by transnational terrorism. Security and terror experts and our federal government tell us that the "preeminent security threat to the United States continues to be from al-Qa'ida and its affiliates and adherents."[1] Yet at the cost of our liberties, reputation, national treasure, military personnel and security contractors, and serenity, the first post-9/11 decade has taught us that we need a sustainable, economical, clean, proportionate, and reasonable response to the threat, which at this point, presents as indefinite.

The United States has already faced a sustained threat, which held the promise of even greater nightmares than are now posed by radical Islamic terrorists. For nearly 50 years, a Cold War with the USSR offered a similar kind of tense and tentative peace on our soil as has been lived in the past 10 years. Soviet cruise missiles were held at bay for all that time through the predominantly psychological construct of *deterrence*.

Although our government leaders, as well as the great majority of strategists, quickly dismissed the prospect of deterring what was seen as an irrational enemy with no "return address" and nothing held dear following the September 11 attacks, the ensuing years offered a second (and third…) look at the prospect. As rational actors with specific agendas, terrorists make cost/benefit analyses of their planned actions, as do any rational military leaders or members of ordered societies.

Many experts believe that by tailoring deterrence to specific parts of terrorist systems, the strategy can and should be an important part of

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[1] White House Office, *National Strategy for Counterterrorism* (Washington, DC: The White House, 2011), 3.

counterterrorism (CT) and national security policy going forward. Despite this call, national strategies have been slow to reflect this initiative.

B.   HYPOTHESIS

Deterrence strategy as an element of CT policy should be as specific and overt as possible/practical in order to be effective.

C.   LITERATURE REVIEW

Deterrence is both understood on the interpersonal (child rearing, relationships) and municipal (crime) levels, as well as at the state (security) level. The strategy long predates the Cold War, but is best understood through the Cold War model. This leads many to an incomplete comprehension or misunderstanding of the term. In order to apply the long history and nuances of what is generally a simple concept properly, a review of the uses and types of deterrence is worthwhile. The review of scholarly and policy writing for this thesis will consist of three major related parts.

To begin, a summary of the concept of deterrence will offer a solid basis for all the remaining discussion in this paper, as deterrence is the foundation of the thesis. This necessarily includes an appreciative inquiry of Cold War deterrence. Next, the specific literature on deterrence of terrorism will be analyzed in a comparative context. Finally, an extensive review of the place of terrorism deterrence in national strategies since 9/11 will be helpful in revealing both the background thinking on the topic—and specifically, how it has evolved in a short time—and the often, but not always corresponding place of deterrence, as a strategy in the service of counterterrorism. This will be especially useful in working toward the following research question posed and toward the policy analysis as the methodology used.

D.   RESEARCH QUESTION

How can the United States make better use of deterrence strategies in ongoing CT efforts?

To support exploration of this primary question, it may be worthwhile to bear in mind some supporting notions, which generally arise out of this inquiry. These distinctions will become clear in the presentation of the literature review and factor into the conclusions of this paper.

Questions to facilitate inquiry into primary question:

- Is the United States using deterrence strategy in CT? To what degree?

- Are deterrence policies overt or de facto?

- Is there an important distinction in deterrence strategy and other strategies that might fall under the deterrence umbrella?

- Can the costs of deterrence strategy be measured? Cost/benefit?

- Is it more effective to have general deterrence policies or tailored?

- Does the measure of potential death, destruction, disruption get calculated into the scale of the deterrence chosen?

E.   RESEARCH METHOD

The research method to be used to answer the primary research question posed will be a *policy analysis* based on Bardach's[2] Eightfold Path.[3] For step one, defining the problem, Bardach urges readers to think in terms of deficits and excess.[4] As it applies here, this will be established by first determining what role deterrence plays in national security strategy; Section B.3. of the Literature Review examines the (degree of) inclusion of deterrence strategy in recent national policy. Held against an indefinite threat posed by radical Islamic terrorism, the problem (too little?) is then established.

With this background, evidence will be further assembled using national strategies for counterterrorism, and security and homeland security as related to

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[2] Eugene Bardach, *A Practical Guide to Policy Analysis: The Eightfold Path to More Effective Problem Solving* (Washington, DC: CQ Press, 2005).

[3] 1. Define the Problem 2. Assemble Some Evidence 3. Construct Alternatives 4. Select the Criteria 5. Project the Outcomes 6. Confront Trade-offs 7. Decide 8. Tell Your Story

[4] Bardach, *A Practical Guide to Policy Analysis,* 5.

transnational terrorism, and then gauged using an *appreciative inquiry*[5] of Cold War, post-9/11, and other related deterrence methods as part of the data set. Additionally, known organizational and psychological factors of al Qaeda-brand terrorism will comprise data that will be analyzed in a matrix that will weigh likelihood of success of various measures of deterrence. Using this analysis, the efficacy of tailored deterrence will be evaluated against standing policy, and recommendations made accordingly.

Additional evidence gathering involves an assessment of what influences terrorists to act by reviewing and coalescing what is known about the psychology of terrorism. This will be a two-part undertaking; the first regarding the what motivates terrorists (specifically radical Islamists) and the second summarizing the understanding in what is hoped to be derived from committing acts of terrorism.

Furthermore, data will be collected on the individual actors and support individuals in the organizational structure of radical Islamic terror groups.

Toward constructing alternatives, the focus on methods of deterrence and evaluation of the success or futility of each based on the compiled data on the psychology of terrorists and terrorism, roles within terror organizations, and methods of deterrence offers several options. This will allow for an initial analysis on how best to formulate a deterrence strategy that might be effective. Understanding what is important to individuals who have chosen the terrorist path is crucial in determining the strategy.

The analysis of the data will be derived from a matrix constructed for this thesis. The axes will consist on one plane of role in organization, such as financier, leader, or suicide bomber, and on the other plane, type of deterrent.

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[5] Appreciative inquiry focuses on what works well toward finding a solution, as opposed to problem solving which puts emphasis on what is wrong. For more see "Definitions of Appreciative Inquiry," Case Western Reserve University, July 2005, http://appreciativeinquiry.case.edu/intro/definition.cfm.

These comprise the selected criteria for evaluation. The analysis that follows will offer possible outcomes as well as counter-arguments.

F.   SIGNIFICANCE OF RESEARCH

The review of the literature demonstrates an increasing call for the use of deterrence policy in the service of CT efforts. Although there was some significant effort at formulation and implementation in the mid to late post-9/11 decade, the effort has not garnered any notable traction. This thesis is a small attempt to determine the most effective and logical way to formulate tailored deterrence strategy for the threat of radical Islamic terrorism. Success in this area would provide economic and security benefits to the United States, and may serve to model related strategies and policies.

G.   THESIS ORGANIZATION

Between this introductory chapter and the conclusion are four major sections of the thesis. The first (Chapter II) examines the problem with a review of the literature as discussed above, looking at general and historical deterrence, the place of deterrence in post-9/11 national strategies, and specific application of deterrence to terrorism. Chapter III presents the data to be analyzed in Chapter IV. The major divisions of the data chapter are Psychology of (radical Islamic) Terrorism, Conflicts for Comparison, and Applied Typologies of Deterrence. The analysis in the ensuing chapter is built off a matrix constructed for this study. Finally, Chapter V takes a look at the strategy surrounding the issues of deterrence and radical Islamic terrorism.

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II.   PROBLEM AND INQUIRY

A.   TERRORIST THREAT

As the significance of research points to the potential value of tailored deterrence strategy for the threat of radical Islamic terrorism as a potential policy application, this section quickly reviews and establishes a need based on the pervasive threat.

1.   Continued Threat

> The more time that passes without an attack on American soil, the more this threat will test the commitment of American leaders and the nation's collective patience.[6]

Doubts about the threat of transnational terrorism are beginning to creep back into the American psyche. A Pew Research poll conducted in January 2012 determined that Americans believe that defense of terrorism should be a "top priority" for Congress and the President, yet is, "given less priority today than over the course of the past decade."[7] In fact, the steady decline has put *terrorism* on par with *social security* as a concern.[8]

Given this sentiment among the American public, might this view be reflective of professionals actually engaged in homeland security? One of the primary conclusions drawn by a group of homeland security professionals in wrapping up a rigorous and extensive program in homeland security recently was

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[6] Kristin M. Lord, John A. Nagl, and Seth D. Rosen, "Beyond Bullets: A Pragmatic Strategy to Combat Violent Islamic Extremism," *Solarium Strategy Series, Center for a New American Security*, June 2009, 10.

[7] "Public Priorities: Deficit Rising, Terrorism Slipping, Tough Stance on Iran Endorsed, Overview," PewResearch Center for the People & the Press, January 23, 2012, http://pew research.org/pubs/2178/state-of-the-union-economy-jobs-iran-military-spending-social-security-medicare-immigration-tax-fairness-environment.

[8] Ibid.

that *we are probably over-emphasizing this terrorism thing.*[9] This would indicate a view that it is time to move on, shift focus, or at least scale back.

Yet, one of the things that was learned in the recovery of Osama bin Laden's (OBL's) letters in the execution of his demise—the small portion that were declassified and released—was that the influential leader was still quite focused on attacking and bringing down the United States of America.[10] This has done little to alter the perception of the terrorist threat, even among those engaged in the homeland security enterprise; however, as bin Laden was viewed as marginalized by the time of his eventual death.[11]

Perhaps these doubts are reflective of the sometimes ambiguous or ambivalent messages offered by terrorism experts, "Nearly 11 years after 9/11, there is still a remarkable lack of consensus among analysts about the current threat posed by al Qaeda and, in particular, about whether al Qaeda is near defeat or remains a significant threat."[12] The 2011 National Strategy for Counterterrorism is unambiguous, however:

> The preeminent security threat to the United States continues to be from al-Qa'ida[13] and its affiliates and adherents.[14]

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[9] Author's personal observation, CHDS 1101/02 Capstone course. Additionally, the waning support from many participants' home agencies toward the program indicates declining investment into the homeland security architecture; another indicator of threat perception.

[10] Nelly Lahoud et al., "Letters from Abbottabad: Bin Ladin Sidelined?" Harmony Program, The Combating Terrorism Center at West Point, May 3, 2012, http://www.ctc.usma.edu/wp-content/uploads/2012/05/CTC_LtrsFromAbottabad_WEB_v2.pdf.

[11] Note the subtitle of "Letters from Abbottabad" is in the form of a question: "Bin Ladin Sidelined?" Additionally, a Pew Research poll determined that bin Laden's death received more coverage than the American public had interest in. "Death of bin Laden: More Coverage than Interest, Many Say Osama Story Overcovered, Overview," PewResearch Center for the People & Press, May 11, 2011, http://pewresearch.org/pubs/1990/news-interest-osama-bin-laden-death-overcovered.

[12] Brian Michael Jenkins, *New Challenges to U.S. Counterterrorism Efforts: An Assessment of the Current Terrorist Threat*, U.S. Senate, 1 (July 11, 2012) (Testimony before the Committee on Homeland Security and Governmental Affairs).

[13] Note that variations on spellings of Muslim names are a function of carrying quoted passages exactly as written.

[14] White House Office, *National Strategy for Counterterrorism*, 3.

The confusion and substantial debate centers on whether al Qaeda central is close to eradication. For the purposes of this paper, this is a moot point. The ideology, goals and strategies introduced to the world by al Qaeda live on. "This ideology is the lifeblood that continues to sustain the vitality and growth of the global jihadist movement."[15] In addition, according to Steven Flynn, "even if al Qaeda disappeared tomorrow, acts of terrorism…will be the asymmetric weapons of choice for state and nonstate actors intent on confronting U.S. power in the 21st century."[16]

Also for the purposes of this paper, the terms al Qaeda and violent Islamic extremism are used interchangeably. This is a reflection of the pervasiveness of the al Qaeda brand, which is based, as everyone knows, on a perversion of Islam. Frank Cilluffo cites a "witch's brew" of jihadists who "may be more regionally or locally focused," but "increasingly ascribe and subscribe to al Qaeda's goals and the broader global jihad, with U.S. and western targets increasingly in their crosshairs."[17]

2. Lowering the Guard

The 9/11 attacks redefined plausibility. Scenarios previously dismissed as far-fetched became operative presumptions.[18]

The uncertainties about the threat from terrorism were also experienced prior to 9/11, as part of that world that we used to live in—one that no longer exists. The World Trade Center was bombed in 1993 by radical Islamic terrorists in the hope of bringing down the two towers in a grandiose blow to the Great

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[15] Frank J. Cilluffo, "The Future of Homeland Security: Evolving and Emerging Threats," 2, (Statement for a hearing of the U.S. Senate Committee on Homeland Security and Governmental Affairs) July 11, 2012, http://www.hsgac.senate.gov/hearings/the-future-of-homeland-security-evolving-and-emerging-threats.

[16] Stephen E. Flynn, "The Future of Homeland Security: Evolving and Emerging Threats," July 11, 2012, http://www.hsgac.senate.gov/hearings/the-future-of-homeland-security-evolving-and-emerging-threats.

[17] Cilluffo, "The Future of Homeland Security: Evolving and Emerging Threats."

[18] Brian Michael Jenkins, *Unconquerable Nation: Knowing Our Enemy, Strengthening Ourselves* (Santa Monica, CA: RAND Corporation, 2006), 1, http://www.rand.org/pubs/monographs/MG454.

Satan. Though the attack killed several people and caused extensive physical, economic, and psychological damage, it was a failure in relation to its goals. Security, which was not yet called homeland security, was quickly ratcheted up, sustained, and then gradually relaxed to an intermediary level. Then came the bombing of the Khobar Towers in 1996 by radical Islamic terrorists, in which 19 American servicemen were killed, and then I998 African embassy bombings. Although these attacks occurred in the far reaches of other continents, they were recognized as attacks against American interests, and security at home was again successively ratcheted up and then gradually relaxed. The pattern repeated with the bombing of the USS Cole in 2000. The time may have come to lower the guard again by September of the following year.

Al Qaeda has already proven the virtue of being patient. If the absence of a successfully orchestrated transnational terrorist attack on U.S. soil in the ten years since the Pearl Harbor of our time is evidence of anything, it may be just that. It may also indicate that the monumental CT efforts that have been unleashed since the attacks are having the effect that we are paying for. Rather than look at this as a return on investment, albeit a costly one, some may choose to read the indicators as a dismantled or disengaged threat. History indicates that this simply cannot be true.

The 2006 National Strategy for Combatting Terrorism reminds us "Terrorism is not simply a response to our efforts to prevent terror attacks. The al-Qaida network targeted the United States long before the United States targeted al-Qaida."[19] Terrorists whose cause has not altered, circumstances not changed, nor demands been met, do not simply get tired and move on. The players may change to a degree, but unless enough of them have been killed, the threat exists. Certainly, we have seen continued success in decapitating many of the al Qaeda and affiliated leaders,[20] including OBL. However, the

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[19] White House Office, *National Strategy for Combatting Terrorism* (Washington, DC: The White House, September 2006), 9.

[20] Jenkins, *New Challenges to U.S. Counterterrorism Efforts.*

conditions that led to these terror organizations and acts have not changed substantially in the needed directions. The U.S. foreign policy, including presence in the Muslim lands, has not altered significantly, its support of Israel has not been withdrawn, and the caliphate has yet to be restored. "We have become more adept at disrupting terrorist networks; nevertheless, our terrorist adversaries continue to learn and adapt, posing an enduring threat to the security of America and its allies and partners."[21]

3.   Long War

It is evident that this conflict will not be decided in the near future but will persist, as did the Cold War, possibly for decades…[22]

The reality is that despite the respite from major attacks on our soil and the shift of focus to Iraq, Afghanistan, Pakistan, and Arab Spring nations, "violent Islamist extremism will remain a potent threat to American national security for the foreseeable future.[23] "The 2010 QDR report also does not refer to the 'long war.'"[24] However, the 2011 National Strategy for Counterterrorism proclaims that, "The United States deliberately uses the word 'war' to describe our relentless campaign against al-Qa'ida" and that we are in fact "at war" with that "specific organization" and its affiliates and adherents.[25]

"Beyond al Qaeda we confront a protracted ideological conflict, of which the terrorist campaign waged by disconnected jihadists is a symptom."[26] Multiple simultaneous bombings in Madrid in 2004 and London in 2005, as well as numerous plots on airplanes in the past decade indicate that the enemy is still

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[21] Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, 2010), 6.

[22] Jenkins, *Unconquerable Nation*, 51.

[23] Lord, Nagl, and Rosen, "Beyond Bullets," 9.

[24] Stephen Daggett, *Quadrennial Defense Review 2010: Overview and Implications for National Security Planning* (CRS Report No. R41250) (Washington, DC: Congressional Research Service, 2010), 25.

[25] The terms Islamic extremists or fundamentalists are used to denote the same terrorist circles as al Qaeda and its affiliates and adherents for this paper.

[26] Jenkins, *Unconquerable Nation*, 51.

determined to inflict spectacular, mass casualty carnage, made convenient by the mass transportation relied upon for daily life and economic viability.[27]

4. Summary of Rationale for Focus on Radical Islamic Terrorism

This thesis is organized on the principle that we are facing an enduring threat of terrorism, and therefore need to transition to strategies that will serve us for an unknowable, but lengthy period of time. The specific focus of this paper is on the threat of radical Islamic terrorism—or the al Qaeda brand—as not only based on the progenitor of the war, but also the continued greatest terrorist threat to the American homeland, and American interests and allies.[28] This constraint serves four purposes:

- Understanding the *who* is critical to deterrence theory. Only by knowing what motivates terrorist ideologies and individuals can a deterrence strategy be designed.

- Although terrorism has been approached in several theoretical analyses whereby it is painted as a rational tool undertaken by disparate groups with a variety of motivations, which may be identified, and categorized, radical Islamic terrorism is unique in many ways. It would therefore be counterproductive if muddled with other terrorisms[29] in this study.

- The collective knowledge gained from the enormous efforts at understanding radical Islamic terrorists and terrorism offers an unparalleled wealth of information whereby policy may be designed.

- As stated above, this is the enduring threat we face in coming years.

A deterrence policy would likely look different for the other various threats of terrorism faced by the United States and globally. Although some strategies might be applicable from one group to the next, tailoring would be necessary to

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[27] Jenkins, *New Challenges to U.S. Counterterrorism Efforts*.

[28] White House Office, *National Security Strategy* (Washington, DC: The White House, 2010).

[29] Jenkins, *Unconquerable Nation*, 116.

offer appropriate deterrents to eco-terrorists or national separatists, for example. The scope of this thesis does not allow for all these contingencies, however, but if the strategy is found effective, it may be adapted and applied across the spectrum of terrorism, insurgency, guerrilla warfare, and narco-gangs/cartels.

B.   LITERATURE REVIEW

Deterrence is both understood on the interpersonal (child rearing, relationships) and municipal (crime) levels, as well as at the state (security) level. The strategy long predates the Cold War, but is best understood through the Cold War model. This leads some to an incomplete comprehension or misunderstanding of the term. In order to apply the long history and nuances of what is generally a simple concept properly, a review of the uses and types of deterrence is worthwhile. The review of scholarly and policy writing for this thesis will consist of three major related parts.

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1.   What is Deterrence?

The word *deterrence*, and all its variations, is part of our everyday lexicon. Fundamentally, the concept is that some directed unpleasantry may alter the decision to take some action. Potential incarceration is by some measure a crime deterrent. A costly divorce is a deterrent to unfaithfulness in a spouse. Hell is a

deterrent from evil acts, for those who believe (see "crime deterrent" for the rest). Punishment of some form inflicted on a child is a deterrent to future acts of disobedience. Because swaths of child psychology and the ordered society are contingent on the concept of deterrence, some understanding of the notion is instilled in us all.

Patrick Morgan maintains, however, that in the realm of international politics, deterrence "is not easy to explain or understand," despite being an "old practice."[30] Definitions of *deterrence* as a strategic entity generally include the concepts of actors or adversaries, actions, influence, and cost/benefit analyses. Simply put **"**deterrence arises from the fear of unacceptable consequences."[31] More fully, "deterrence is a strategic interaction in which an actor prevents an adversary from taking an action that the cost of taking that action will outweigh potential gains."[32]

Deterrence can be thought of as an offshoot of *persuasion*, or *coercion*, as variations on *influence*, depending on the form. One distinction is that deterrence occurs to prevent an action before it is taken, "Methods, including the use or threatened use of force, to influence the decision calculus of adversary leaders to *not* undertake a specific action."[33] Bowen highlights this with the concept of *status quo*: "If a regime is already involved in some form of terrorist-associated activity, any threat to influence behaviour will be coercive and not deterrent because the aim will be altering the *status quo*; to put an end to the regime's

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[30] Patrick M. Morgan, *Deterrence Now* (New York, NY: Cambridge University Press, 2003), 1.

[31] Robert W. Anthony, "Deterrence and the 9–11 Terrorists," *Institute for Defense Analysis*, May 2003, 14.

[32] Matthew Kroenig and Barry Pavel, "How to Deter Terrorism," *The Washington Quarterly*, Spring 2012, 22.

[33] Patrick J. Garrity, Schmuel Bar, and Keith B. Payne, *Deterrence and Coercion of Non-State Actors: Analysis of Case Studies* (Fairfax, VA: National Institute for Public Policy, 2008), 3.

terrorist-associated activity. However, deterrence is about preserving the *status quo*; keeping things as they are."[34]

Coercion and compellance are used interchangeably in the context of deterrence strategy.[35] Morgan distinguishes between *deterrence* and *compellance*, which he defines as "the use of threats to manipulate the behavior of others so they stop doing something unwanted or do something they were not previously doing."[36] Though he admits, "the distinction between the two is quite abstract,"[37] the crux rests upon dissuading the contemplation of an act versus one already in progress. Likewise, Payne defines coercion as "Methods, including the use of force, to compel adversary leaders to change behavior—*to cease* or undo an action that has already been taken, or to cause those leaders to take action they would not be inclined to take without the threat or use of force.[38] In the end, "for the sake of simplicity" deterrence is used to include coercion and, similarly, Morgan determines deterrence and compellance should be used interchangeably.

Long offers: "Deterrence, as both the manipulation of cost/benefit calculation and the generation of fear, is a form of coercion."[39] Chilton and Weaver divide the cost benefit into four decision points for adversaries: costs and benefits of taking an action and costs and benefits of continued restraint."[40] Deterrence Operations Joint Operating Concept (DO JOC) 2.0 approaches

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[34] Wyn Q. Bowen, "Deterrence and Asymmetry: Non-State Actors and Mass Casualty Terrorism," *Contemporary Security Policy,* 25, no. 1 (April 2004): 69.

[35] Bowen, "Deterrence and Asymmetry: Non-State Actors and Mass Casualty Terrorism,"

[36] Morgan, *Deterrence Now*, 2.

[37] Ibid.

[38] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 3.

[39] Austin Long, *Deterrence: From Cold War to Long War: Lessons from Six Decades of Rand Research* (Santa Monica, CA: Rand Corporation, 2008), 8.

[40] Kevin Chilton and Greg Weaver, "Waging Deterrence in the Twenty-First Century," *Strategic Studies Quarterly*, Spring 2009, 34.

cost/benefit in a "portfolio approach" of three methods of influence, which are "closely linked in practice and often overlap in practice."[41]

Given a general understanding of what it is, the historical context of deterrence is explored in the next section.

a. *Historical*

Most contemporary authors' concepts of deterrence tie back, either directly or indirectly to foundational work in the late 1950s and early 1960s: Most notably, Thomas Schelling, *The Strategy of Conflict* (1960), and *Arms and Influence* (1966), and Glenn Snyder, *Deterrence and Defense: Toward a Theory of National Security* (1961), as well as William Kaufmann, '"The Requirements of Deterrence" (1958). Chilton and Weaver explain the genesis:

> The advent of nuclear weapons did change the way states viewed warfare. The avoidance of nuclear war—or for that matter conventional was on the scale of World War I or World War II— rather than its successful prosecution became the military's highest priority. This spurred a tremendous amount flurry of intellectual activity in the 1950s and 1960s that sought to develop a fully thought-out theory of deterrence as well as a massive national effort to put that theory into practice to deter (and contain) the Soviet Union.[42]

As a result, most modern concepts of deterrence are inexorably intertwined with the Cold War. Yet, "deterrence was an essential element of national security practice long before the Cold War and the introduction of nuclear arsenals into international affairs. For millennia, states have sought to convince one another that going to war with them was ill advised and counterproductive, and they sometimes responded to deterrence failures in a manner intended to send powerful deterrence messages to others in order to reestablish and enhance deterrence in the future."[43]

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[41] Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0* (Washington, DC: Department of Defense, 2006), 24.

[42] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 42.

[43] Ibid.

A 2008 National Institute for Public Policy study examined 10 case studies of "Deterrence and Coercion of Non-State Actors" (NSA) spanning over 200 years.[44] The profiles included several states' efforts to overcome various threats, ranging from 18th century Barbary piracy to 20th century urban terrorists in Europe to 21st century Palestinian groups. One conclusion of the study was that deterrence in these cases was "seldom an explicit goal of leaders of states," and therefore developed through "painful" trial-and-error.[45] "However, actions by states resulted in NSA leaders changing their behavior in ways that suggest that they were deterred from continuing their preferred course."[46]

Deterrence also played a notable role in World War II. It was actually a view of lack of credible deterrence that propelled Japan to attack the United States, but the devastating reality of the bombings of Japanese cities that deterred the nation from continuing the war. Beyond this point, and the "millennia" reference above, it was "after World War II, for the first time, deterrence evolved into an elaborate *strategy*."[47] This is detailed in the next section in regards to Cold War deterrence.

b.   Cold War

"For more than 50 years during the Cold War, deterrence was a cornerstone of U.S. strategy."[48] In addition, "in the strictest Cold War sense," deterrence "refers to the idea that you induce, even compel, an adversary not to do something by credibly threatening terrible pain and suffering in retaliation."[49] The deterrence by punishment/retaliation was so much a part of Cold War lure, that this form became synonymous with the strategy on the whole. On the most

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[44] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors.*

[45] Ibid., 5.

[46] Ibid.

[47] Morgan, *Deterrence Now*, 3.

[48] Kroenig and Pavel, "How to Deter Terrorism," 21.

[49] Eric Schmitt and Thom Shanker, *Counterstrike: The Untold Story of America's Secret Campaign against al Qaeda* (New York City, NY: Times Books, 2011), 5.

fundamental level, the United Stats "aimed to prevent the Soviet Union from attacking the West by threatening to retaliate with a devastating nuclear response."[50] "This simplified certain aspects of deterrence and served as the basis for deterrence theory, deterrence postures, and specific policies."[51] Conceptually, deterrence by denial (as opposed to retaliation) went to the back burner and grew cold.[52]

Cold War projection of intentions and credibility were complex, despite the singular known state-level enemy. The majority of U.S. intelligence resources were directed at identifying and analyzing all that could be known about the enemy. The drivers of these investments are evident. "Nuclear weapons made it simple to threaten unacceptable damage, and that made it plausible that deterrence might work consistently."[53]

In sum, the Cold War both "simplified" deterrence strategy, and elevated its position in defense policy as never before. "Without nuclear weapons and the Cold War, deterrence would have remained an 'occasional stratagem.'[54] Through decades of heightened tensions, head-on conflict, possibly resulting in the "unimaginable" was staved off primarily through a chess match of deterrence.

While retaliatory deterrence dominated Cold War thinking, there are multiple methods of deterrence, and the primary methods as well as contributing nuances are detailed in the next section.

c.   Methods of Deterrence

Because of the pervasive influence of Cold War deterrence on notions of the strategy, the common understanding centers on retaliation, or punishment as it more commonly identified. It is important to recognize that there are multiple

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[50] Kroenig and Pavel. "How to Deter Terrorism," 21.

[51] Morgan, *Deterrence Now*, 239.

[52] These methods of deterrence are further explored in the next section.

[53] Morgan, *Deterrence Now*, 240.

[54] Ibid., 3.

methods of deterrence to be considered against the post-Cold War and post-9/11 threat environment.

The Department of Defense Joint Operating Concept Version 2.0 breaks deterrence into three types:

- credibly threaten to deny benefits or gains sought

- credibly threaten to impose costs considered too painful to incur

- encourage adversary restraint by convincing not taking the action will result in acceptable outcome.[55]

Numbers one and two can be categorized in two fairly distinct mechanisms—deterrence by denial and deterrence by punishment.[56] These will be detailed here, and the entire "portfolio," including "deterrence by encouraging adversary restraint" will be further explored throughout this paper. However the third form which depends more on diplomacy is not central to this thesis and will not be discussed in detail as the first two.[57]

To summarize the distinction between the two main forms of deterrence examined here, Trager and Zagorcheva hold that it is "generally true that 'where punishment seeks to coerce the enemy through fear, denial depends on causing hopelessness.'"[58]

(1) Deterrence by Punishment. "Deterrence by cost imposition involves convincing adversary decision-makers that the costs incurred in response to or as a result of their attack will be both severe and highly likely to occur."[59] This is

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[55] Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0,* 24.

[56] Long, *Deterrence: From Cold War to Long War*.

[57] Trager and Zagorcheva offer two elements to deterrence strategy: "(1) a threat or action designed to increase an adversary's perceived costs of engaging in a particular behavior, and (2) an implicit or explicit offer of an alternative state of affairs if the adversary refrains from that behavior," These align quite well with 1. (punishment) and 3. (persuasion) above. However, they then go on to discuss "punishment" and "denial" throughout their paper, as is done here. Thus, despite this seeming incongruity, their views align with this author's.

[58] Robert Trager and Dessislava P. Zagorcheva, "Deterring Terrorism: It Can Be Done," *International Security* 30, no. 3 (2005/06): 91.

[59] Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0,* 26.

stated simply enough, and constitutes the form of deterrence most people are familiar with, as discussed above. Morgan also offers a plain explanation of the punishment form: "The essence of deterrence is that one party prevents another from doing something the first party does not want by threatening to harm the other party if it does."[60]

Generally, "Threatened punishment is typically directed at an adversary's leadership and at assets highly valued by the leadership."[61] This rule may be stretched when applied to terrorism, based on systems complexities, such as the involvement of sponsors, and at the opposite end of the spectrum, "lone wolves" whose leadership may be self-directed.

Furthermore, this distinction may be subdivided: "Threatening the NSA itself with punishment may be regarded as direct deterrent strategy; threatening the NSA's host or patron in the expectation that they will put pressure on the NSA may be regarded as an indirect deterrent strategy."[62]

(2)   Deterrence by Denial. The little brother to punishment deterrence strategy is denial. "When considering deterrence, many analysts think solely in terms of deterrence-by-retaliation, but deterrence theorists also advance a second type of deterrence strategy: benefit denial, or deterrence-by-denial."[63] "Deterrence by denying benefits involves convincing adversary decision-makers that the benefits they perceive are of little value and/or are unlikely to be achieved by taking the COA (course of action) the US seeks to deter."[64] Again, the focus on "decision-makers," but in the case of denial, application must be considered for all parts of terrorist organizations.

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[60] Morgan, *Deterrence Now*, 1.

[61] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 14.

[62] Ibid.

[63] Kroenig and Pavel, "How to Deter Terrorism," 23.

[64] Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0,* 26.

Protection of critical infrastructure is one of the foundational forms of deterrence by denial implemented in the post-9/11 U.S. security environment. Many authors isolate this piece of denial. Trager and Zagorcheva assert, "denial involves 'hardening' targets in the hope of making an attack on them too costly to be tried and convincing terrorists of the state's determination not to make concessions in the face of terror tactics."[65] Taquechel and Lewis explain these tactics to be, "investments to reduce attacker expected utility by influencing attacker capability, target vulnerability, and target consequence.[66]

Though less familiar to most, based on the Cold War affect cited above, denial has been a long-standing deterrence strategy. In the National Infrastructure Protection Plan (NIPP) case studies summary, the authors found that historically: "Denial methods were used by states against NSA threats, to attrite NSA threat capabilities, and to reduce the consequence of NSA attacks."[67] Nor is this strategy unfamiliar to the nation that put deterrence on the policy map. "The ability to deny an adversary its goals—whether the goals are political, territorial, material, or other—has been a long-standing element of U.S. deterrent strategy against states."[68]

(3)   Nuances: Messaging, Credibility. For deterrence to have a hope of effectiveness, the targeted audience, or deteree, must first be aware of the potential consequences of an action, and then also believe these to be viable. "Deterrence is ultimately about decisively influencing decision making. Achieving such decisive influence requires altering or reinforcing decision makers' perceptions of key factors they must weigh in deciding whether to act counter to US vital interest or to exercise restraint."[69]

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[65] Trager and Zagorcheva, "Deterring Terrorism," 91.

[66] Eric F. Taquechel and Ted G. Lewis, "How to Quantify Deterrence and Reduce Critical Infrastructure Risk," *Homeland Security Affairs*, 8, no. 12 (August 2012): 2.

[67] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 14–15.

[68] Ibid., 14.

[69] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 33.

As a strategy, deterrence may be thought of as an overt message that some unwelcomed action will be met with an action sufficiently unpleasant so as to inhibit the first party from taking the initial action. The distinction is important for the scope of this paper. What differentiates deterrence as a concept and deterrence as an effective policy is the *overt message* part. "For both deterrence by punishment and deterrence by denial strategies to be successful, two conditions must hold: the threatened party must understand the (implicit or explicit) threat, and decisionmaking by the adversary must be sufficiently influenced by calculations of costs and benefits."[70]

Credibility is also an integral part of deterrence definitions: "Deterrence is a state of mind brought about by the existence of a credible threat of unacceptable counteraction (*Department of Defense Dictionary* 1994)."[71] "Credibility has long been viewed as a key aspect of deterrence: to deter, the adversary must perceive the ally as having both the capability and the will to carry out threatened actions, whether to impose costs or deny benefits."[72] For the Cold War, this dynamic was uncomfortably unknowable. "Deterrence stability required credible threats, but nuclear deterrence made credibility suspect."[73]

Furthermore, for deterrence to be effective there are two forms of credibility necessary. Long cites Kaufmann's early work (1958) delineating these two required elements: "the credible capability to harm and the credible intent to carry out this harm."[74]

Credible capability is further divided to three elements: aggregate forces, proximity, and power-projection capability. In Cold War terms, these dynamics are easy to see. The aggregate forces would be arms buildup and capabilities,

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[70] Trager and Zagorcheva, "Deterring Terrorism," 91.

[71] Morgan, *Deterrence Now*, 1.

[72] M. Elaine Bunn. "Can Deterrence Be Tailored?" *Strategic Forum*, no. 225, January 2007, 5.

[73] Morgan, *Deterrence Now*, 241.

[74] Long, *Deterrence: From Cold War to Long War*, 8.

and all that it entails. Proximity is more than inter-continental ballistic missile capability. The strategic vying for proximate allied territory to place the missiles was testimony to this. Finally, power-projection is the other "forces that mitigate distance."[75] These sub-divisions are clearly applicable to transnational terrorism.

In summary, credibility is "the linchpin of deterrence."[76] "The clarity and credibility of American messages in the mind of the deterree are critical to tailoring deterrence threats."[77] However, the issue of credibility can be "murky despite its tangibility" and "in the intangible realm of intentions is much more opaque."[78] That is to say, reputation is critical toward clarifying the credibility of deterrence.

The above section of literature review sought to define deterrence in general terms and in historical context, as well as breaking the concept into distinct methods and examining meaningful complementary dynamics. The next section will specifically focus on what is held in the literature on deterrence specific to terrorism.

2. Deterrence of Terrorism

In general, there is more agreement in schools of thought on deterrence of terrorists or non-state actors, than divergence. Four main themes emerge: methods, tailoring, communication/credibility, and significance of strategy. Each of these areas will be discussed individually, followed by some other noteworthy findings.

a. *Deterrence Methods for Non-state Adversaries*

The literature on terrorism deterrence offered three distinct and recurring methods of imposing fear toward the adversaries' operational calculus. Two—

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[75] Long, *Deterrence: From Cold War to Long War*, 12.

[76] Ibid., 13.

[77] Bunn, "Can Deterrence Be Tailored?," 1.

[78] Long, "Deterrence: From Cold War to Long War," 13.

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punishment and denial—have been discussed above in the general discussion of deterrence, and the third—encourage restraint—was also mentioned in the outset of this chapter. However the shades with which authors believe these are applicable run almost every combination.

For starters, some authors, such as Long (Rand) and Department of Defense (DOD) (DO JOC) offer "Deny Benefits, Impose Costs, and Encourage Adversary Restraint" as equal entities. Additionally, Davis and Jenkins use a "portfolio" approach, as does the DOD Quadrennial Defense Review (QDR), which is more of a spectrum of the three approaches and all of which are presented and weighed on their own merits.

Probably the most agreed upon are those that see deterrence as a choice between Imposing Costs/Punishment and Denying Benefits/Denial. Among this group, Chilton and Weaver, Bowen, and Kroenig and Pavel presented the two equally (Kroenig and Pavel further subdivided each into direct and indirect, thereby offering four strategic choices). Trager and Zagorcheva put more emphasis on Denial and Garrity et al. more on Punishment. Finally, one author (Fisher) primarily framed deterrence through Retaliation (Punishment) and one (Smith) primarily through Denial, and perhaps the least conforming, Chilton and Weaver offered Denied Benefits and Encouraged Restraint and left Punishment completely out.

Cronin and Cronin dissented, "We will never be able to stamp out terrorism completely, and deterrence by denial simply will not work against terrorists seeking martyrdom."[79] Klaus-Dieter Schwarz, writing for a German publication, made the case for the carrot with the stick: "Deterrence by punishment and denial alone is insufficient. It must be combined with a policy of

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[79] Patrick M. Cronin and Audrey Kurth Cronin, "Challenging Deterrence: Strategic Stability in the 21st Century," *A Special Joint Report of the International Institute for Strategic Studies and the Oxford University Changing Character of War Programme*, February 2007, 26.

compromise and engagement that seeks to influence the structures and causes of conflict."[80]

b.   Tailoring Deterrence for Terrorist Actors

There was great consensus among authors that tailoring deterrence is a necessary part of the approach to employing the strategy in the asymmetrical threat environment. Even prior to 9/11, Ian Lesser determined: "A shorthand for this challenge might be 'personalized' deterrence. Our counterterrorism policy already shows an inclination in this direction…"[81] In an early post-9/11 work, Davis and Jenkins referred to it as "broad front strategy," which they pointed out was normally frowned upon in military strategy. In their case studies, Garrity, Bar, and Payne found, "Attempts to deter or coerce NSAs can draw on an array of possible methods and means."[82] For Whiteneck, this "could seek to influence moderate elements within terrorist networks."[83]

One of the few voices of dissent, Uri Fisher worried, "the requirements to deter individuals within a terrorist system will force policymakers to compromise some very basic and sacrosanct American values."[84] However, in general, tailoring was considered to be intelligent and necessary for terrorism deterrence strategy.

c.   Communicating and Credibility of Deterrence Threat

Communication and credibility, although separate component of deterrence strategy, were almost always presented in unison. One way this was

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[80] Klaus-Dieter Schwarz, "The Future of Deterrence" SWP Research Paper, *German Institute for International and Security Affairs*, June 2005, 27.

[81] Ian O. Lesser, "Countering the New Terrorism: Implications for Strategy," in *Countering the New Terrorism*, ed. Ian O. Lesser, Bruce Hoffman, John Arquilla, David Ronfeldt, Michele Zanini and Brian Michael Jenkins (Santa Monica, CA: RAND Project Air Force, 1999), 131.

[82] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 37.

[83] Daniel Whiteneck, "Deterring Terrorists: Thoughts on a Framework," *The Washington Quarterly* 28, no. 3 (Summer 2005): 197.

[84] Uri Fisher, "Deterrence, Terrorism, and American Values," *Homeland Security Affairs* 3, no. 1 (February 2007): 10.

played out was the through the notion that *credibility* must be properly *communicated* for deterrence to be effective. However, the concepts also stand alone, as in credibility is vital and communication of the threat (to the deterree) is important.

Chilton and Weaver point up the complexity necessitating a tailored approach and communicating as such, "If there are multiple individuals in the political system capable of making and executing the decisions we seek to influence, our deterrence strategy will need to have multiple focal points and employ multiple means of communicating a complex set of deterrence messages that in turn take into account the multiplicity of decision makers."[85]

Finally, Davis and Jenkins took the strategy of communication one step further: "We find it striking that political warfare (the war of information and ideas) is so obviously missing in the current effort."[86]

d.   *Significance of Deterrence Strategy to Counterterrorism*

The general agreement upon the place or importance of deterrence in overall CT strategy is that it should be "employed as part of a broad strategy"[87] or "a component of U.S. grand strategy."[88] It was called necessary, but not sufficient, an important weapon in the counterterrorism arsenal,"[89] and a useful element of broader strategy."[90] Bowen had an interesting take, considering the relation with other strategies despite its own limited role: "Deterrence can realistically be only one element of a much broader counter-terrorist effort.

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[85] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 33.

[86] Paul K. Davis and Brian Michael Jenkins, *Deterrence and Influence in Counterterrorism: A Component in the War on al-Qaeda* (Santa Monica, CA: RAND, 2002), 46.

[87] Colin S. Gray, *Maintaining Effective Deterrence* (Carlisle, PA: U.S. Army War College, Strategic Studies Institute Monograph, August 2003), x.

[88] Long, *Deterrence: From Cold War to Long War,* 85.

[89] Trager and Zagorcheva, "Deterring Terrorism: It Can Be Done," 88.

[90] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 40.

However the preparations and activities associated with other approaches should serve to strengthen the deterrence aspect."[91]

e.   *Other Factors*

Noteworthy overlap in some other areas concerned the importance of conducting deterrence within the context of "American values" (Davis and Jenkins, Fisher) and the necessity of cooperation of friendly states (Garrity. Bar, and Payne, Trager and Zagorcheva, "The Return Address Problem," 108) and/or the problems associated with unfriendly states (Davis and Jenkins).

Also, as noted in the section above, there was considerable discussion on the intermingling of terminologies related to deterrence, Deterrence and Coercion: Garrity, Bar, and Payne; Deterrence and Influence: Davis and Jenkins; compellance, dissuasion, inducement, preemption, prevention: Gray.

Finally, unique to this analysis were two interesting points:

- There was a surprisingly generous amount of literature directly or closely related to the specific topic.

- Even in glancing at some titles, an evolution of thought is evident:

  - Lesser, "Countering the New Terrorism" (1999)

  - Davis and Jenkins, "Deterrence and Influence in Counterterrorism" (2002)

  - Anthony, "Deterrence and the 9/11 Terrorists" (2003)

  - Gray, "Maintaining Effective Deterrence" (2003)

  - Smith, "A Strategic Response to Terrorism: A Framework for U.S. Policy" (2003)

  - Bowen, "Deterrence and asymmetry: non-state actors and mass casualty terrorism" (2004)

  - Klaus-Dieter Schwarz, "The Future of Deterrence" (2005)

  - Whiteneck, "Deterring Terrorists: Thoughts on a Framework" (2005)

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[91] Bowen, "Deterrence and Asymmetry: Non-State Actors and Mass Casualty Terrorism," 69.

- Trager and Zagorcheva, "Deterring Terrorism: It Can Be Done" (2005/06)
- DOD, "Deterrence Operations Joint Operating Concept." (2006)
- Colby, "Restoring Deterrence" (2007)
- Bunn, "Can Terrorism be Tailored?" (2007)
- Fisher, "Deterrence, Terrorism, and American Values" (2007)
- Long, "Deterrence: From Cold War to Long War" (2008)
- Chilton and Weaver, "Waging Deterrence in the Twenty-First Century" (2009)
- Kroenig and Pavel, "How to Deter Terrorism" (2012)

From the low key "Countering," and Davis and Jenkins softening the title of their study with the inclusion of "Influence," to mid-decade proclamations of "The Future, Restoring, and It Can Be Done," to the confident "How to" and "Waging" most recently, the changing thoughts on deterrence are inferred. This dynamic thinking translated to national strategies as will be examined below.

3. Role of Deterrence in Post-9/11 National Strategies

A host of strategies to protect from, prevent, preempt, prepare for, mitigate, counter, respond to, and recover from terrorism in the homeland have been introduced and enacted since late 2001. Many of these have proven costly, some controversial, and the effectiveness has ranged from creating more terrorists, to uncertain, to the stark absence of a major attack in the homeland in over a decade. If we are facing a long term threat, as proposed here, the sustainability of such efforts becomes a larger question than effectiveness (although they are calculated together in a benefit analysis), particularly in the absence of another major attack on our soil, waning will, skepticism of threat, and tiring of American psyche.

National strategies have understandably evolved since 2001 to reflect the dynamic threat environment, changing administrations, and progress in the war on terror, as well as the needed maturation in a fledgling (homeland security)

enterprise. To some degree, these strategies reflect underlying thought and research in the many disciplines associated with security policy. The place for deterrence of the asymmetrical threat within these national strategies shall be examined by segmenting the time into three periods coinciding with presidential administrations, as well as major phases in the evolution of deterrence thinking. This progression should be evident, although the actual reflection in active policy may not be as obvious.

a. Early: 2001–2004

In the first months and years after 9/11, much of the focus was (understandably) directed at what learning could be applied from details about al Qaeda, OBL, and the actual 9/11 plot and attacks, as well as previous al Qaeda operations. One study conducted by the Institute for Defense Analyses (IDA) sought to discover if deterrence would have impacted the 9/11 terrorist attacks.[92] The conclusions drawn were noteworthy: Even a single instance of deterrence over the scores of opportunity points, such as a hijacker being challenged by airport security on a test flight (dry run), may have altered the entire operation; "the terrorists were cautious and risk averse, yet we as a nation failed to challenge them at the threshold levels necessary to deter their attack."[93] Looking through the rearview lens of eleven hijack-free years on U.S. airlines offers a perspective that even a portion of the post 9/11 security implementations for air travel are sufficiently effective.[94]

(1) Skepticism. Nevertheless, deterrence was viewed with great skepticism in the early years after 9/11. "In the aftermath of the September 11 attacks on the World Trade Center and the Pentagon, academics and

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[92] Anthony, "Deterrence and the 9–11 Terrorists."

[93] Ibid., 2.

[94] A pitfall of this study is that drug smugglers were used as the basis for analysis in determining behavioral choices for the hijackers/suicide terrorists. Clearly the motivations of these two groups are very different, which, as this thesis postulates, is critically important in deciding on effective methods of deterrence.

policymakers were quick to dismiss the strategic role that deterrence could play in U.S. counterterrorism policy."[95]

Generally the early "case against the use of deterrence strategies…rest(ed) on three pillars:" Irrational actors, highly motivated/willing to die, and 'lack of return address."[96] Jenkins and Davis took up the mantle of determining the feasibility of applying deterrence in a new threat environment early on. One summary of their findings was expressed this way: "The concept of deterrence is both too limiting and too naïve to be applicable to the war on terrorism."[97] In fact, even prior to the undertaking, these terror experts determined that *deterrence* was so limiting, that they added *influence* to the study to bolster it.

"The attacks not only raised obvious questions about whether it would be possible to deter non-state actors willing to commit suicide for their cause. They also accentuated concerns about Weapons of Mass Destruction (WMD)-seeking rogue states. In response, the George W. Bush administration announced a new doctrine of preemption, leading many observers to conclude that US strategy had abandoned deterrence."[98]

Succeeding President Bush's widely cited proclamation that the "enemy cannot be deterred," the 2002 National Security Strategy demonstrated the move away from deterrence: "The United States can no longer simply rely on deterrence to keep the terrorists at bay or defensive measures to thwart them at the last moment."[99]

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[95] Fisher, "Deterrence, Terrorism, and American Values," 1.

[96] Trager and Zagorcheva, "Deterring Terrorism," 87.

[97] Davis and Jenkins, *Deterrence and Influence in Counterterrorism*, xviii.

[98] Jeffrey W. Knopf, "The Fourth Wave in Deterrence Research," *Contemporary Security Policy* 31, no. 1 (April 2010): 2.

[99] White House Office, *National Security Strategy of the United States of America* (Washington, DC: The White House, 2002), 8.

Following the attacks, national and homeland security were seen as closely aligned missions with common threats. Under the heading, "Prevent Our Enemies from Threatening Us, Our Allies, Our Friends with Weapons of Mass Destruction," the 2002 National Security Strategy demarcates past and future:

> The nature of the Cold War threat required the United States—with our allies and friends—to emphasize deterrence of the enemy's use of force, producing a grim strategy of mutually assured destruction. With the collapse of the Soviet Union and the end of the Cold War, our security environment has undergone profound transformation…the United States can no longer solely rely on a reactive posture as we have in the past. The inability to deter a potential attacker, the immediacy of today's threats, and the magnitude of potential harm that could be caused by our adversaries' choice of weapons do not permit that option.[100]

(2)   References. Early U.S. CT strategy did reference the term "deterrence" as a focal point. For example, the 2003 "Office for Domestic Preparedness Guidelines for Homeland Security" was subtitled, "Prevention and Deterrence." Oddly, though, despite the reference, "deterrence" is not directly identified or referred to within the body of the document at all. Seemingly, then, all goals and guidelines the document sought to achieve were considered "deterrence." In other words, there is a difference between the generic ideal of everything as deterrence and specific deterrence strategies, such as, "if x, then y" deterrence by punishment or the deterrence by denial as cited in the 9/11 study above.

A case could be made that anything done in the effort of counterterrorism is a deterrent, due to the nature of the threat. Gathering intelligence, preparing for response, mitigation…these could all be tied back to deterrence. Tacquechel and Lewis, demonstrate this claim in reference to (2011) Homeland Security Presidential Directive (HSPD) 8, in this way: "if we measure deterrence as a function of changing components of threat vulnerability and consequence, our

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[100] White House Office, *National Security Strategy of the United States of America*, 2002, 13.

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deterrence efforts encompass the entire HSPD-8 spectrum."[101] However, going forward, for the purposes of this paper, the term deterrence is used as a preconceived strategic plan as an end in itself, as opposed to the blanket way it is used in the earlier strategies. Otherwise, it is watered down to the point of ineffectuality.

The only direct reference to deterrence in the 2002 "National Strategy for Homeland Security" was for the purpose of comparison to Cold War intelligence. Whereas "early warning systems were the foundation for strategic nuclear deterrence because they provided the President with sufficient lead-time to make retaliatory decisions,"[102] terrorists were elusive, distant, and even if tracked, difficult to target—and therefore unable to be deterred. The 2002 "National Security Strategy" more directly addressed this view as it relates to kinetic realities:

> The threats and enemies we must confront have changed, and so must our forces. A military structured to deter massive Cold War-era armies must be transformed to focus more on how an adversary might fight rather than where and when a war might occur.[103]

Clearly, deterrence in the early strategies was more of a byproduct of prevention than a goal in itself. For example, the document "Securing our Homeland: U.S. Department of Homeland Security Strategic Plan (2004) offers "detect, deter, and mitigate threats to our homeland" under "Prevention."[104] The 2002 National Strategy for Homeland Security recognized "defensive action

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[101] Taquechel and Lewis, "How to Quantify Deterrence and Reduce Critical Infrastructure Risk," 2.

[102] White House Office, *The National Security Strategy of the United States of America*, 2002, 15.

[103] Ibid., 29.

[104] Department of Homeland Security, *Securing Our Homeland: U.S. Department of Homeland Security Strategic Plan* (Washington, DC: Department of Homeland Security, 2004), 14.

works as a deterrent to terrorists weighing the potential effectiveness of their plans."[105]

(3)   Summary of 2001–2004. In summarizing this period we might consider that just prior to the 2001 attacks, experts found that "deterring terrorists and their sponsors" should be a "core element" of national CT strategy.[106] However, "September 11 represented a profound failure of deterrence."[107] Coupled with the emotions that carried the nation at the time, deterrence was largely dismissed soon after 9/11. However, by 2004, "Strategic Command was directed by the secretary of defense to develop a deterrence operations joint operating concept (DO JOC)."[108]

b.   *Middle: 2005–2008*

As the homeland security enterprise moved into the next phase of maturity along with the installation of the second Bush administration, all began to breathe a bit for the relative quiet on the home front, and the reactive posture yielded in some quarters toward more deliberation of what lay ahead; though the Madrid, then London attacks punctuated the continued threat from al Qaeda.[109]

(1)   Revival. "In the spring of 2005, the administration started a high-level review of its overall counterterrorism policy."[110] As referenced above, within weeks of the 9/11 attacks, President Bush had dismissed the notion of deterring terrorists, and policy and strategy followed suit. "Yet the reports of the demise of deterrence were greatly exaggerated."[111] The authors of *Counterstrike* identified that "just four years after declaring that deterrence 'will not work', the Bush

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[105] Office of Homeland Security, *National Strategy for Homeland Security* (Washington, DC: The White House 2002), 17.

[106] Lesser, "Countering the New Terrorism: Implications for Strategy," 127.

[107] Davis and Jenkins, *Deterrence and Influence in Counterterrorism*, 25.

[108] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 32.

[109] Hurricane Katrina also shifted the mission again, to "all hazards."

[110] Trager and Zagorcheva. "Deterring Terrorism," 122.

[111] Long, *Deterrence: From Cold War to Long War,* viii.

administration reconsidered in the 2006 National Strategy for Combating Terrorism, writing: 'A new deterrence calculus combines the need to deter terrorists and supporters from contemplating a WMD [weapons of mass destruction] attack, and failing that, to dissuade them from actually conducting an attack."[112]

Terrorism professionals and security strategists continued to tread the deterrence waters in similar fashion, with an eye on WMD, and by relation, Cold War-style applications, and as "a tool the United States should not ignore,"[113] but apply as "part of a broader strategy against terrorism."[114] Reflective of this, Daniel Whiteneck wrote in *The Washington Quarterly*, Summer 2005, "Instead of abandoning deterrence or limiting it to state sponsors of terrorism…the key is to extend deterrence using conventional and nuclear forces to the societal elements that support terrorism."[115] Thus, with the view that "an adversary that prefers escalation regardless of the consequences cannot be deterred,"[116] the suggestion was to target terrorists' support systems.

(2)   Rational Actors. Trager and Zagorcheva ventured a bit further declaring, "Even the most highly motivated terrorists, however, can be deterred from certain courses of action by holding at risk their political goals, rather than life and liberty."[117] In their analysis, terrorists "are not irrational in a sense that makes them impossible to deter,"[118] and all that would be required is that they "be sufficiently influenced by cost-benefit calculations."[119] By developing "a framework that specifies the types of deterrence strategies that can be effective

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[112] Schmitt and Shanke, *Counterstrike*, 5.

[113] Whiteneck, "Deterring Terrorists," 198.

[114] Ibid., 188.

[115] Ibid., 198.

[116] Ibid., 187.

[117] Robert and Zagorcheva, "Deterring Terrorism," 88.

[118] Ibid.

[119] Ibid., 94.

against particular classes of groups and elements of terrorist networks,"[120] they began to think in terms of *tailored deterrence*, and hoped to demonstrate that deterring terrorism "can be done."[121]

(3)   Firm Language. By mid-decade, Cold War deterrence theory expert Matthew Kroenig had firmly concluded, "terrorists are deterrable. While they may have a preference structure that's different than ours, they do value things—things that we could hold at risk—and we can, therefore, influence their decisions."[122] In the summer of 2005, "Kroenig, and his mentor, (Barry) Pavel crafted a briefing to make the case that a combination of efforts—economic, diplomatic, military, political, and psychological, some highly classified and some carried out in the broad daylight of public debate—could in fact establish a new strategy and create a new and effective posture of deterrence against terrorist groups."[123]

"The strategy fed into the 2006 Quadrennial Defense Review (QDR), which announced the Pentagon's intentions to shift 'from a "one size fits all" deterrence—to tailored deterrence for rouge powers, terrorist networks, and near-peer competitors.'" The QDR "also included an initiative to move beyond Cold War thinking about deterrence and called for 'tailored deterrence,' customized for each specific adversary to deter specific actions in specific situations."[124]

Other national strategies began to reflect this thinking also. The September 2006 National Strategy for Combating Terrorism treated deterrence with more assuredness than the previous strategies. Primarily, it was discussed with regard to WMD, with explicit language promoting certain policy in line with Cold War deterrence—should terrorists and/or rouge states use them—and to an

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[120] Robert and Zagorcheva, "Deterring Terrorism," 94.

[121] The subtitle of the paper.

[122] Schmitt and Shanke, *Counterstrike*, 51.

[123] Ibid.

[124] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 5.

extent as a functional wing of prevention. However, the discussion under prevention also offered deterrence as a stand-alone concept, rather than just another way to phrase defensive measures.

Moreover, according to Rand, "The 2006 version of the national-security strategy returned deterrence to the lexicon of U.S. national defense."[125] Again, the focus was primarily WMD, but conceptually, this was the furthest deterrence had travelled in national strategy since 9/11:

> The new strategic environment requires new approaches to deterrence and defense. Our deterrence strategy no long rests primarily on the grim premise of inflicting devastating consequences on potential foes. Both offenses and defenses are necessary to deter state and non-state actors, through denial of the objectives of their attacks and, if necessary, responding with overwhelming force.[126]

While this statement leans more toward state-level deterrence, the ideas of "both offensive and defensive," and "denial of the objectives of their attacks" demonstrate serious evolution of thought.

Likewise, the 2007 National Strategy for Homeland Security took a pass at the concept of terrorist deterrence strategy in a sub-section headed: "Deter the Terrorist Threat."[127] The reintroduced notion was presented in two parts: "Decreasing likelihood of success" and "Changing the motivational calculus." The first part specifically references 'deterrence by denial,' and largely goes on to enumerate the ways that current strategies, such as target hardening, create this condition. The "motivational calculus" referred to harkens the familiar retaliatory

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[125] Long, *Deterrence: From Cold War to Long War,* viii.

[126] White House Office, *The National Security Strategy of the United States of America* (Washington, DC: The White House, 2006), 22.

[127] Homeland Security Council, *National Strategy for Homeland Security* (Washington, DC: The White House, 2007), 25. Oddly, the subsection comes under the CI/KR section, but makes reference to the previously presented section "Prevent and Disrupt Terrorist Attacks," referencing those activities as "part of our deterrent strategy," The layout gives the feel of an afterthought.

form of deterrence: "Terrorist actors also can be deterred or dissuaded from conducting attacks if they fear potential consequences for their actions."[128]

Nonetheless, whereas the some theorists were emboldened, there is a distinct feel of testing-the-waters with the deterrence strategy presented here. Nothing new is presented toward implementation, but instead, it offers deterrence as almost a new way to look at the steps that are already implemented. Furthermore, the two pages on deterrence are presented under the chapter titled "Protect the American People, Critical Infrastructure, and Key Resources," rather than the previous chapter, "Prevent and Disrupt Terrorist Attacks."[129] At the very least, this is a step forward from the previously held view that deterrence was intertwined with prevention. Here the emphasis is on deterrence by denial, specifically by hardening targets and thus reducing the chances for successful attacks. However, the second part clearly focuses on retaliation or punishment ("dissuaded from conducting attacks if they fear potential consequences…"). While this fits as the second form of deterrence under that heading, it may well have stood under the prevention section along with "deny," "disrupt," and "prevent."

(4)   Summary of 2005–2009. Nevertheless, two hopeful pieces to be gleaned from this section are the introduction of deterrence by denial, and the reference to "terrorist actors," signifying a deterrence targeting down to the individual (role); both themes of this thesis.

Both strategists and Strategies in the mid-range of the decade-plus since 9/11 reflected an increasing momentum toward resurrecting deterrence as a policy for the dynamic threat environment we face in the early 21st century. A 2007 article by Uri Fisher in *Homeland Security Affairs* sought to keep the enthusiasm in check however, by questioning the policy against "American Values." "What really prevent the U.S. from deterring terrorist," he wrote, "is not

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[128] Homeland Security Council, *National Strategy for Homeland Security*, 26.

[129] Homeland Security Council, *National Strategy for Homeland Security*.

the simple unsuitability of the strategic concept of deterrence, but America's humanity, civility, and idealism."[130] Fisher's contentions that in application, deterrence would be abhorrent and self-damaging in the end are partially reflective of some of the misguided conduct in the war on terror to that point in time, which was quite overtly eviscerated in the court of public opinion. Nevertheless, the idea of keeping with our ideals is one that was touched upon, though not so extensively, by just about every author writing on the topic, and is an important point. It will be more extensively discussed in the Analysis section below.

Additionally, despite marked progress, the efforts to advocate for terrorist-targeted deterrence strategies "encountered several roadblocks"[131] in the second Bush administration. "Skeptical midlevel Pentagon bureaucrats refused to pass the 'new deterrence' concept up the chain of command. Partly, it was fear of the new; it was also obvious that this proposed strategy contradicted the Bush administration's public line…"[132] "As recently as May 2006, President George W. Bush said, "The terrorists have no borders to protect or capital to defend. They cannot be deterred—but they will be defeated."[133]

c.   Late: 2009–2012

The deterrence approach remains a poorly understood and underutilized element of U.S. CT strategy. It holds, however, great potential for helping to thwart future terrorist attacks.[134]

The rising drumbeat from the academic and policy arenas toward more prominence for deterrence in national strategy offered renewed optimism with the incoming Obama administration in 2009. Chilton and Weaver wrote that year: "In our judgment, deterrence should and will remain a core concept in our twenty-

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[130] Fisher, "Deterrence, Terrorism, and American Values," 2.

[131] Schmitt and Shanke, *Counterstrike*, 52.

[132] Ibid.

[133] Bunn. "Can Deterrence be Tailored?" 3.

[134] Kroenig and Pavel, "How to Deter Terrorism," 22.

first century national security policy…because the concept itself is just as relevant today as it was during the Cold War."[135]

Knopf, in reviewing the "fourth wave" of deterrence research concluded the "area of greatest and most important consensus is that deterrence remains viable and relevant, even in dealing with terrorism."[136] Kroenig and Pavel, again in 2012, updated their thesis that "deterrence is an essential part of an effective counterterrorism approach,"[137] in an article titled "How to Deter Terrorism."

Though policymakers likely derive information from this collective body of study and its authors and associates, the review of current homeland security strategy does not reflect trust in this school. This disconnect is, in part, an impetus for this paper.

Although not a strategy per se, the Quadrennial Review of Homeland Security (2010) offers itself as "A Strategic Framework for a Secure Homeland."[138] Toward the goal of preventing terrorist attacks "within the United States," "deter" is used in three of the five objectives. The first is with its old partner, "disrupt:"

> **Deter and disrupt operations:** Deter, detect, and disrupt surveillance, rehearsals, and execution of operations by terrorists and other malicious actors.[139]

The others toward more innovative measures—as the continuum of post-9/11 strategies go:

> **Stop the spread of violent extremism:** Prevent and deter violent extremism and radicalization that contributes to it.

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135 Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 31.

136 Knopf, "The Fourth Wave in Deterrence Research," 2.

137 Kroenig and Pavel, "How to Deter Terrorism," 33.

138 Department of Homeland Security, *Quadrennial Homeland Security Review: A Strategic Framework for a Secure Homeland* (Washington, DC: Department of Homeland Security, 2010).

139 Ibid., 23.

Engage communities: Increase community participation efforts to deter terrorists and other malicious actors and mitigate radicalization toward violence.[140]

The two remaining objectives are familiar calls for intelligence gathering and sharing and protection of "targets." As with the earlier strategies, a case can be made that these measures constitute a form of deterrence by denial, by making successful attacks more difficult to enact.

(1)   Gleaning Meaning. What remains, then, is to discern whether these objectives stem from deterrence policy, or if "deter" is used as more of a convenient buzzword to denote and intermediary to "detect" and "defeat" as previously seen. The brief explanations under these headings offer an encouraging, but incomplete picture: "Reducing violent extremism will frustrate terrorist efforts to recruit operatives, finance activities, and incite violence; enhanced public preparedness…can help minimize fear and diminish the effectiveness of terrorist tactics." In general, these efforts come under the denial umbrella. However, these initiatives lean more toward the DO JOC's third form of deterrence listed above, which falls at the more passive or non-aggressive end of the scale: *encourage adversary restraint by convincing not taking the action will result in acceptable outcome*. The impetus for this is explained this way:

> When the Obama Administration came to power in 2009, it decided that it would increase the relative emphasis on non-kinetic measures to break the jihadists' link to other Muslims and to widen the resulting gap. The primary goal of this 'countering violent extremism" initiative was to stop the process of radicalization through non-coercive measures including social programs, counter-ideology initiatives, and the delegitimization of al-Qaeda's narrative.[141]

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[140] Department of Homeland Security, *Quadrennial Homeland Security Review*, 23.

[141] Mark E. Stout, "The Evolution of Intelligence Assessments of al-Qaeda to 2011," in *Ten Years Later: Insights on al-Qaeda's Past & Future Through Captured Records*, *Conference Proceedings*, ed. Lorry M. Fenner, Mark E. Stout, and Jessica L. Goldings (Washington, DC: National Defense University, September 2011), 37.

Thus in a spectrum of deterrence options, with destroying the enemy at one end, these measures would fall toward the opposite end, with many other possibilities between.

The 2010 version of the National Security Strategy pecks from different parts of the deterrence spectrum based on the adversary. Distinction is made between "our focus on *defeating* al-Qa'ida and its affiliates in Afghanistan, Pakistan, and around the globe," and "our determination to *deter* aggression and prevent the proliferation of the world's most dangerous weapons."[142] Similar to earlier decade posture, deterrence is seemingly applied at state level and terrorist sought to be crushed.

For homeland security, the strategy offers a familiar sounding prescription, which "relies on our shared efforts to prevent and deter attacks by identifying and interdicting threats, denying hostile actors the ability to operate within our borders, protecting the nation's critical infrastructure and key resources, and securing cyberspace."[143] The details of the strategy's aim to "Disrupt, Dismantle, and Defeat Al-Qa'ida and its Violent Extremist Affiliates,"[144] consist of familiar goals, and although the term "deny" is generously applied to these descriptions, they are not necessarily new, innovative, or deterrence as it has been described here.

Two strategy goals, which might constitute deterrence by denial initiatives, are "Resist Fear and Overreaction," which feeds the goals of terrorism, and "Contrast Al-Qa'ida's Intent to Destroy with our Constructive Vision," which may also interplay with terrorist goals. The latter also syncs with the "outreach" approach detailed above in discussion of the QHSR.

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[142] White House Office, *National Security Strategy*, 1. (emphasis added).

[143] Ibid., 18.

[144] Ibid., 19.

The 2010 National Strategy for Counterterrorism promises "an approach that is more focused and specific than were previous strategies."[145] Much of this is attributable to the clarity of the threat that has been gained over the course of a decade of intense kinetic activity and intelligence scrutiny.

Similar to the preceding National Security Strategy, one goal (of eight) is to counter al Qaeda's message and ideology. Otherwise, goals are familiar, such as eliminating safehavens and building partnerships.

One notable section on building a culture of resilience seems to build out the concept of deterrence by denial, specifically focusing on "denying success to al-Qa'ida." Actions taken "can deter them from attacking particular targets or persuade them that their efforts are unlikely to succeed. This represents a progression in thinking toward deterrence. However, the discussion centers on protection of assets and critical infrastructure, so while the presentation in terms of deterrence (by denial) is advanced, the strategy itself dates back to before 9/11. Resilience will be covered in more detail in part III.

(2)   Tailored Approach. Finally, for the 2010 National Strategy for Counterterrorism, the "focused" or tailored approach has mainly to do with the location or local affiliate of the al Qaeda threat than any other factor.

We have seen that the 2006 Quadrennial Defense Review promoted a tailored deterrence for various state and non-state threats. The 2010 QDR, likewise features deterrence at all levels:

> Our deterrent remains grounded in land, air, and naval forces capable of fighting limited and large-scale conflicts in environments where anti-access weaponry and tactics are used, as well as forces prepared to respond to the full range of challenges posed by state and non-state groups.

> While U.S. forces are heavily engaged in current wars, the Department's prevent-and-deter activities will be focused on ensuring a defense in depth of the United States; preventing the emergence or reemergence of transnational terrorist threats,

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[145] White House Office, *National Strategy for Counterterrorism,* 2.

including Al Qaeda; and deterring other potential major adversaries.[146]

And furthermore features the concept of tailoring:

Credibly underwriting U.S. defense commitments will demand tailored approaches to deterrence. Such tailoring requires an in-depth understanding of the capabilities, values, intent, and decision making of potential adversaries, whether they are individuals, networks, or states. Deterrence also depends on integrating all aspects of national power.[147]

Deterrence strategy has gained some stature in the field of CT strategies, but progression against the starting point of almost nil leaves plenty of room for growth.

(3)   Summary of Literature Review. The review of the literature on deterrence was conducted here in three stages. The first section covered theoretical underpinnings of deterrence as well as touching on writings on the historical basis for its use and general methods and catalysts that are understood. Next the review specifically sought literature on the application of deterrence to terrorists, which was largely theory-based as little actual experience exists here. Finally, post-9/11 national strategies were combed for any policy direction toward deterrence of non-state actors. This was divided into three segments of time between 2001 and 2012, with some progression noted, as stated above.

With the Literature Review as background, the next section will offer possible rationale for the undertaking in this thesis, for examining the use of deterrence in the asymmetrical threat environment.

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[146] Department of Defense, *Quadrennial Defense Review Report*, v–vi.

[147] Ibid., 14.

C. THE CASE FOR DETERRENCE IN THE ASYMMETRICAL THREAT ENVIRONMENT

> Deterrence, the unpalatable but indispensable part of the old cold war, will be an equally indispensable part of the strategy of the new long war.[148]

Wars in the conventional sense, which have involved the United States, have been fought in tragic, but finite periods in the space inside a decade. However, for the unconventional experience, featuring first and foremost the Cold War with the former Soviet Union, multiple decades with a distant uncertain termination point is the precedent.

Deterrence, based on mutually assured destruction, was the prominent strategy by which the United States conducted, endured, and eventually won the Cold War. This strategy was based on a firm belief that the adversary was rational, and backed by a broad effort at understanding that adversary by U.S. military and civilian intelligence and academic assets. In addition to the costs of these intellectual assets, an arms build-up greatly taxed the United States economically, but these costs eventually contributed to the fall of the enemy for what they were incurring in keeping pace.

In the non-traditional war on terror that the United States launched into at the outset of the new millennium, deterrence was swiftly set aside,[149] and preemption chosen as the course. Not only were terrorists largely viewed as irrational,[150] and therefore unpersuadable, but as an asymmetric enemy failed to present viable targets for retaliation[151]—the fundamental mode of deterrence of the Soviet state. Furthermore, there seemed no answer to the question, *how do you deter a suicide bomber?*[152] "How can one successfully deter attackers who see their own death as the ultimate (spiritual) gain, who have little they hold dear

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[148] Long, *Deterrence: From Cold War to Long War*, viii.

[149] Knopf, "The Fourth Wave in Deterrence Research,"

[150] Kroenig and Pavel. "How to Deter Terrorism," 21.

[151] Long, *Deterrence: From Cold War to Long War*, 80.

[152] Ibid.

that we can threaten retaliation against, and who perceive continued restraint as the violation of what they see as religious duty to alter an unacceptable status quo through violence?"[153] The messianic leader, whose influence extends across and down the organizational matrix to the eventual operatives, poses similar perplexing intangibles, if only on a wider scale.[154]

1. Sustainable/Economical

A decade has now passed since we realized we were at war. And as with the threat we faced from Soviet ballistic-missiles, we have dedicated our immense resources to understanding and tracking the enemy. This despite the difference between the knowledge that nuclear warheads could effectively wipe our nation from the planet and that the current adversary's best effort to date was carried out using only blades and our own assets and liberties against us. And unlike the Cold War experience, there is no hope of the enemy bankrupting for spending corollary to our own.

With the Iraq experience as a reminder that "the prevention of war is preferable to the waging of it,"[155] we should be inclined to seek new solutions to perceived threats. "The United States must develop counterterrorist strategies that enable it to avoid major commitments of American forces."[156]

One thing our unilateral intelligence build-up offers us is a wealth of information about the enemy that we may be able to take advantage of in ways that have not been significantly employed before. Deterrence may be a viable, sustainable approach to counter terrorist threats as part of a comprehensive policy. For instance, whereas the initial belief (at least in general) was that terrorists, particularly suicide operatives, must be irrational actors, we have now

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[153] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 37.

[154] Barry R. Schneider and Jarrold M. Post, ed. *Know Thy Enemy: Profiles of Adversary Leaders and Their Strategic Cultures* (Maxwell Air Force Base, AL: USAF Counterproliferation Center, 2002).

[155] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 31.

[156] Jenkins, *New Challenges to U.S. Counterterrorism Efforts*, 3.

been told by psychologists and other social scientists that the opposite is true: terrorists are not only rational, but they have specific objectives and hold a great many things dear to them (some in common, and also on individual bases).

2.   Clean/Proportionate

The costly wars in Iraq and Afghanistan, the de facto fronts in the war on terror in the years following the 9/11 attacks, also informed Americans and their government of some of the rules by which the fight might best be conducted. Actions have effects, and veracity or exaggeration notwithstanding, perceptions of those actions sometimes greatly influence those who may be willing to conduct themselves in opposition to American efforts at order and security. Deterrence policy may offer a chance to wage actions against terrorist perpetrators that are both clean and proportionate, or even unobserved. If truly successful, deterrence would avoid actions altogether, kinetic or otherwise, and never move past the threat stage, as in the Cold War. This is improbable, as the policy would cover innumerable acts and actors posed by the asymmetrical threat, rather than the one, giant and cataclysmic one. Nevertheless, targeted acts of retaliation are the tit-for-tat responses that people in all places and cultures understand.[157]

> While deterrence in the current and future security environments may look substantially different from deterrence in the past and require different capabilities, the basic concept remains the same. Further, given the desire to preserve the United States as something other than a garrison state, deterrence will continue to be a major component of U.S. grand strategy.[158]

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[157] Schneider and Post, ed. *Know Thy Enemy.*

[158] Long, *Deterrence: From Cold War to Long War*," 85.

III. DATA

This chapter examines factors leading toward an analysis of deterrence strategies in three broad areas; Psychology of Terrorism, Conflicts for Comparison, and Typologies of Deterrence. The first section on psychology offers insight into what may or may not persuade purveyors of terrorism based on the understanding of motivations. The comparison section is intended to give some concrete examples of circumstances in which deterrence may be used in relation to the research question posed here. In some cases, it draws on cases covered in the Literature Review section for purposes of analysis. Finally, the typologies section offers an in-depth examination of the various potential applications of deterrence. All of these areas are factored into to the analysis in the following chapter.

A. PSYCHOLOGY OF TERRORISM

> Adversaries' perceptions are the focus of all our deterrence efforts.[159]

The Quadrennial Homeland Security Review proclaims that in order to "apply the most effective threat mitigation strategies possible, including understanding how best to protect against terrorist capabilities and deter and disrupt operations of those who would use terrorist tactics to advance their aims...We must develop a comprehensive understanding of the threats and malicious actors that have the desire and ability to harm the United States."[160]

It has been hypothesized here that the threat from the al Qaeda brand terrorists—violent Islamic extremists—offers exploitable attributes based on commonality of psychology. "Becoming a terrorist is more than just taking part in

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[159] Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0.,* 56.

[160] Department of Homeland Security, *Quadrennial Homeland Security Review*, 21.

terrorist activities; it is transforming the self to arrive at a particular identity."[161] These potential psychological chinks are founded on known shared histories and aspirations. As mentioned previously, the unparalleled investment by the United States and the West into understanding the motivations and strategies of these adversaries offers a singular opportunity to exploit this knowledge discerningly.

For example, in summary of the Institute for Defense Analysis findings on "Deterrence and the 9-11 Terrorists," the researchers concluded that the hijackers were "cautious and deliberate" and "clearly not in a hurry to sacrifice their lives in a failed attack."[162] They were further able to infer that, "in searching for consequences that would deter, we need to focus on their underlying fears – for example, feelings of being powerless, embarrassing one's cause, or revealing broader unfolding plans, or bringing retaliation upon their supporters."[163] These separate, but related findings represent what will be discussed here under the headings of "Who are they?"—their influences based on history and perceptions and, "What do they want?"—their needs, desires, and motivations in committing acts of terror.

1.   Who Are They?

At the heart of Islamic terrorism is the crisis of identity in Islamic communities.[164]

Social scientists who have studied terrorists acting under the banner of Islam have noted several important characteristics that thread through these individuals. For example, shame[165] and perceived injustice[166] are two common themes for a large number of Muslims, particularly those living in the Arab lands.

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[161] Fathali M. Moghaddam, *From the Terrorists' Point of View: What they Experience and Why They Come to Destroy* (Westport, CT: Praeger Security International, 2006), 15.

[162] Anthony, "Deterrence and the 9–11 Terrorists," 14.

[163] Ibid.

[164] Ibid.

[165] Moghaddam, *From the Terrorists' Point of View*.

[166] Mohammad-Mahmoud Ould Mohamedou, *Understanding Al Qaeda: The Transformation of War* (London: Pluto Press, 2007).

There is also a belief that these perceptions extend beyond the geographic Muslim world: "Complex political, economic, social, and psychological factors have combined to create circumstances in which Muslim communities in both western and non-western countries, and practicing Muslims in particular, fundamentalist Muslims even more so, feel collectively threatened. This perceived threat is a distressing psychological experience, associated with feelings of collective shame, frustration, and anxiety."[167] Not surprisingly, however, those ascribing to radical Islam may feel the greatest impact. In a study of "How Islamist Extremists Quote the Qur'an," researchers concluded that the greatest prevalence "deal with themes of victimization, dishonor, and retribution."[168]

a. *Staircases to Terrorism*

The emotional response to these sensibilities moves many toward the lower levels of the "staircase to terrorism"—a metaphorical construct of psychologist Fathali Moghaddam.[169] While the vast majority never ascends past the first levels, the understanding of these powerful perceptions informs the fight against those who chose to move well beyond a sense of injustice to committing or conspiring toward terrorists acts under the guise of Islamic teachings.

Retaliation for perceived injustices has been cited as a foundational motivation for terror attacks against the United States and the West.[170] "Every event, particularly ones with negative outcomes, is scrutinized with the assumption that a foreign power, usually England or America, is manipulating and corrupting individuals and institutions from behind the scenes. Even events,

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[167] Fathali M. Moghaddam, *How Globalization Spurs Terrorism: The Lopsided Benefits of "One World" and Why That Fuels Violence* (Westport, CT: Praeger Security International, 2008), 109.

[168] Jeffrey R. Halverson, R. Bennett Furlow, and Steven R. Corman, "How Islamist Extremists Quote the Qur'an," *Arizona State University Center for Strategic Communication* (Report no. 1202) July 9, 2012, 2.

[169] Moghaddam, *From the Terrorists' Point of View.*

[170] Mohamedou, *Understanding Al Qaeda.*

such as natural disasters, an earthquake for example, are routinely interpreted as reflecting the influence of Western powers."[171]

b.   Justice

Dynamic leaders like OBL and Anwar Awlaki have had great success in convincing followers that the United States has both indiscriminately targeted and killed innocent Muslims, and that is in fact at war with Islam. The U.S.-led invasions and operations in Afghanistan and Iraq, as well as drone strikes in Pakistan and other U.S. interventions in the Muslim world have contributed to this narrative. The very presence of innumerable U.S. military and civilian personnel in these lands has led to collateral damage, accidental targeting, and a host of widely publicized outrages.

"From the terrorists' point of view, there can be no peace without justice—as justice is defined by them of course."[172] What is important going forward, is not whether the perceived injustices are warranted or not, because both cases are true at this point. What we need to understand is that the desire for retaliation is real for many Muslims. A portion will act on this hunger via terrorism. How do we exploit this attribute in a program of deterrence?

c.   Religiosity

Deep religious tenets are of obvious importance to subscribers of al Qaeda ideology.[173] In fact, "Fundamentalist Islam is on the rise in large part because it is the only movement and ideology being given room to offer a solution to the identity crisis being experienced in Islamic communities."[174] Therefore, a nuanced understanding of *radical* forms of Islam is needed, as certain beliefs may be distorted from what is commonly understood. For example, selling drugs would be an expected prohibition, however radical

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[171] Moghaddam, *From the Terrorists' Point of View,* 50.

[172] Ibid., 7.

[173] At least they are professed to be.

[174] Moghaddam, *From the Terrorists' Point of View,"* 145.

jihadists use the principle of *takfir wal hijra*—whatever it takes for the cause—to work around this.[175] Another obvious example of this would be the murder of innocent humans, which is also justified for the cause. Also, dichotomies surrounding the views of sex are more than noteworthy, as discussed below. Understanding these distinctions is necessary, lest we make assumptions about an individual's or group's value on life, or views on morality, family, kinship, or money and so forth.

d.   Shame

Many psychologists hold that, "The most salient emotional experience of Islamic communities over the last few decades has been feelings of collective shame."[176] Shame over American backed dictators or having little or no control over "events that impact them daily, and no merit-based opportunities in their own societies."[177] On the flip-side of the coin from shame is pride. How can the importance of pride be used advantageously toward deterrence, if at all? Is pride predominantly a male quality? Is it equally prevalent across Muslim ethnicities, or more so in Arabs? Is pride only personal, or does it extend to families and tribes?

Drawing on conclusions from a study of the 9/11 hijackers, Anthony posited that radical Islamic terrorists "probably would not wish to appear as powerless or inept, embarrass their cause, reveal larger plans, or bring shame on their families and supporters."[178] One reason for the leap from personal pride to the family level in this study may have something to do with the hijackers being dead (or imprisoned) at the termination of the mission. However, dead or alive, if shame brought upon family members, kin, or the terror group (who call each other "brothers") is an important source of fear or caution, this can be exploited.

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[175] Seth G. Jones, *Hunting in the Shadows: The Pursuit of al Qa'ida since 9/11* (New York: W.W. Norton & Company, 2012), 165.

[176] Moghaddam, *From the Terrorists' Point of View,"* 70.

[177] Ibid.

[178] Anthony, "Deterrence and the 9–11 Terrorists," 1.

One interesting exception, in relation to the existential shame, is the lone wolf or self-radicalized Islamic terrorist. By virtue of the "lone" status, these individuals have no group to answer to. The family ties may also be in question for these terrorists. Faisal Shazad, the Times Square bomber, had a strained marriage at the time of his attempted act, and his wife had previously taken their two children to Saudi Arabia to live with her parents while he continued to reside in Connecticut.[179] Nadal Hassan, the Fort Hood shooter, lost both his parents and was unmarried.[180] These examples may offer cursory indication that a shame strategy extended beyond the self, might not work for lone wolves. However, it may also be that the threat of personal shame would carry even stronger sway for members of this category. Without external beings to share personal triumphs or conflicts with, loners may become more egocentric, magnifying the importance of a personal crusade. If it is found that there is a pattern between lone wolf actors and weak or absent familial ties that information will help to inform the deterrence choices made for this type.

e.   *Relative Deprivation*

Psychologists have long considered the conditions or feelings of deprivation in regards to the path to terror. After 9/11, it was often cited that OBL was a multi-millionaire, and that others of the hijackers or in the network were well-to-do and/or educated.[181] Consequently, attributes related to poverty or any *absolute* deprivation have been largely dismissed as underlying motivations for choosing a path of terrorism. Moghaddam sums it by saying, "if poverty were a root cause, most of the world would be terrorists"[182]

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[179] *Wikipedia*, s.v. "Faisal Shahzad," last modified August 16, 2014, http://en.wikipedia. org/wiki/Faisal_Shahzad.

[180] *Wikipedia*, s.v. "Nidal Malik Hasan," last modified September 3, 2014, http://en.wiki pedia.org/wiki/Nadal_Hassan.

[181] White House Office, *National Strategy for Combating Terrorism*.

[182] Fathali M. Moghaddam, "Radicalization and Terrorism in Global Context" (lecture, Naval Postgraduate School, Monterey, CA, April 24, 2012).

A more promising concept is *relative deprivation,* whereby the frustration and envy stems from perception of one's place or identity in the world. As example of this, we can imagine a person who may be financially well off in absolute terms; perhaps in the top ten percent of the world in terms of wealth, as many Americans are. Commonly enough, this individual may find reasons to feel deprived in relation to someone else within the scope of cognition who appears to have more or have it better. In absolute terms, the individual is still quite advantaged, but their relative perception causes disillusionment. Reality and perception do not always jibe when related to envy.

Furthermore, relative deprivation is not only limited to monetary or material things. "From the viewpoint of Relative Deprivation Theory, terrorism is an outcome of rising, unmet expectations, and increasing frustration among millions of young people who feel they have no voice, no hope, and no possibilities for a brighter future as things stand."[183] Increasingly, globalization contributes to the sense of relative deprivation. "The young in Islamic societies see how life could be—the rich educational opportunities, the consumer goods, and social and political freedoms—but in their own societies they see no opportunities to achieve such a life."[184]

f.   Group Association

Relative deprivation can manifest itself on both individual and group levels. *Egotistical relative deprivation* occurs "when an individual feels personally deprived as a result of making interpersonal comparisons between himself and others." *Fraternal relative deprivation*, is "when group members feel deprived because of the situation of their group relative to other groups."[185] "In the context of Islamic communities, fraternal relative deprivation is highly prominent, because people are encouraged to compare their group situation with that of out-

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[183] Moghaddam, *From the Terrorists' Point of View,"* 23.

[184] Ibid.

[185] Moghaddam, *How Globalization Spurs Terrorism*, 49.

groups."[186] Where "fraternal" feelings are this strong, the same communal sense can be useful across a spectrum of deterrence.

Relative deprivation may lead to strong feelings of envy, and when coupled with other psychological factors and religious fervor, can exhort some on the continued climb up the staircase to terrorism. One's identity "is based on cognition, but perhaps even more importantly it is based on emotions, such as shame and anger."[187] Whether these feelings are justified or not is not important. Awareness and understanding of deep-seated psychological beliefs offers planners a tool for designing deterrence strategies.

g.   *Displaced Anger/Projection*

Intertwined with feelings of relative deprivation fostered by globalization and induced by images of the American lifestyle, many begin to displace their anger to the perceived source of their displeasure: The Great Satan is to blame. A psychological term to describe this might be "projection."

Victoroff, in reviewing psychological approaches to understanding the "mind of the terrorist" determined "that the salient feature of terrorist psychology is projection, an infantile defense that assigns intolerable internal feelings to an external object when an individual who has grown up with a damaged self-concept idealizes the good self and splits out the bad self."[188] The United States is an easy choice for extremist Islamic projection: "The more dissimilar an out-group is, the more likely it is to be selected as a target for displaced aggression."[189] The final piece of this particular puzzle, and perhaps the factor that pushes violent Islamic extremists further up the staircase, ironically comes from self-imposed repression stemming from their very own religious adherence.

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[186] Moghaddam, *How Globalization Spurs Terrorism*, 49.

[187] Moghaddam, *From the Terrorists' Point of View*, 32.

[188] Jeff Victoroff, "The Mind of the Terrorist: A Review and Critique of Psychological Approaches," *Journal of Conflict Resolution,* 49, no. 1 (2005).

[189] Moghaddam, *From the Terrorists' Point of View*, 17.

h. Repression/Self-Repression

One threat of globalization is the bombardment of evidence of the modern living accoutrements enjoyed in western (and eastern) societies. By contrast, fundamentalist Muslims may seek to live a stark existence further leading to feelings of relative deprivation. From his early days in Sudan, "Bin Laden forbade the use of most modern amenities on the compound—including refrigerators, electric stoves, and air conditioning—arguing that Muslims must scorn modern conveniences."[190] Viewing these contrasting lifestyles creates an internal conflict in young Muslims.

Islam is considered the foundation of life to the most fervent believers; Islam influences every aspect of a Muslim's life. Add to that, the conclusion of Mogghadam, "The most important aspect of societal conditions is how people answer the basic questions about their identities, both personal and collective."[191] The rules set up by devout Muslims, as with other ultra-conservative religious sects, create conditions that stretch the boundaries of ingrained human nature. The result is one of frustration, and particularly in young Muslim men who may experience "frustration derived from older men controlling sex partners."[192]

Young Muslim men are left with few options, as adultery is severely frowned upon. The net result is that "young men do not have the freedom to experience romance,"[193] and again the fallout from this is displaced. Stories abound of young girls who are stoned to death for the crime of adultery in some Muslim countries, even if the "crime" is a result of their own rape. By way of example, in a 2012 attack on a resort hotel outside of Kabul, Afghanistan, Taliban gunmen sought to terrorize and kill as many of the hundreds of guests as possible, primarily because the hotel was known to promote drinking and

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[190] Seth G. Jones. *Hunting in the Shadows: The Pursuit of al Qa'ida since 9/11*, 40.

[191] Moghaddam. *From the Terrorists' Point of View*, 45.

[192] Ibid., 92.

[193] Ibid., 91.

adulterous liaisons. Upon bursting into the lobby on their murderous rampage, the gunmen's very first question was, "Where are the prostitutes?"[194] signifying the same kind of displaced aggression that is posed in attacks on Americans.

Ironically, some of the same conditions that create the sense of dissatisfaction in young Muslims drive many of them deeper into the radical end of the faith. "Fundamentalist Islam is on the rise in large part because it is the only movement and ideology being given room to offer a solution to the identity crisis being experienced by Islamic communities."[195] As a result, "individuals' sense of relative deprivation, particularly stemming from humiliation, may be "alleviated by an embracement of radical Islam, seen as a 'way to restore their dignity, gain a sense of spiritual calling, and promote their values.'"[196]

Jenkins, in summarizing the importance of "Knowing Our Enemy," writes, "We cannot formulate multidimensional responses to terrorism that combine physical destruction with political warfare if we do not see our adversaries as anything other than comic-book villains."[197] Moghaddam and others have done the legwork at understanding those who would do us harm. The next component with respect to formulating deterrence strategies is more tactical.

2. What Do They Want?

Terror is just as much an enemy as the terrorists who try to create it. Our reactions to terrorism are part of any assessment.[198]

Understanding what individuals and terror organizations hope to gain by acts of terrorism is just as important as knowing what provokes them to act when it comes to offering deterrence strategy. "At a more strategic level, we should be

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[194] Habib Zahori Nordland and Alissa J. Rubin, "Witnesses Describe Brazen Attack on Resort Hotel Near Kabul," *New York Times*, June 22, 2012, http://www.nytimes.com/2012/06/23/world/asia/26-die-as-afghan-forces-fight-taliban-at-hotel.html?pagewanted=all.

[195] Moghaddam, *From the Terrorists' Point of View*, 145.

[196] Arie W. Kruglanski and Shira Fishman, "The Psychology of Terrorism: 'Syndrome' Versus 'Tool' Perspectives," *Terrorism and Political Violence* 18 (2006): 197.

[197] Jenkins, *Unconquerable Nation*, 53.

[198] Ibid., 197.

able to deter by undermining the terrorists' motivation."[199] In fact, the information might prove to be of greater use considering the consistency with the "garbage out" portion of what makes the terrorist tick, in contrast to the multivariate psychological forces, which would fluctuate more on individual bases, even within groups of likeminded fanatics.[200] In this realm, "deterrence strategies must convince the attacker that if they execute a certain (course of action), it will yield benefits less than those yielded by their best course of action without deterrence. Hence, these strategies must account for our attackers' goals as well as our own, as long as we can influence their perspective on attaining their goals."[201]

These methods of deterrence by denial are directly tied to the acts, rather than the actors. It is because we know that terrorists are by and large rational actors, that we further know they highly desire success in their decided act of terror. "Terrorists are engaged in a high-risk venture and must constantly exercise caution. Even suicide terrorists, who generally hope to conduct significant attacks, would most likely not carelessly or recklessly squander their lives on an attack that had little chance of success."[202] If some factor threatens to impede the success of the act (denial) it may very well be scuttled for the time— and perhaps altogether. This is as true for the suicide bomber (maybe more so) as it is for the leader, albeit possibly for slightly different reasons. Terror, as manifested today, seeks fear, which is instilled by carnage, carefully timed and located, so that the media may carry the message most effectively.

Based on these knowns, denial strategy can be applied to terrorist goals in three broad areas: tactical success of the plot/act, psychological success of instilling fear, and success in exposure of message—primarily via media. Our CT

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[199] Anthony, "Deterrence and the 9–11 Terrorists," 1.

[200] Victoroff, "The Mind of the Terrorist."

[201] Taquechel and Lewis, "How to Quantify Deterrence and Reduce Critical Infrastructure Risk," 2.

[202] Anthony, "Deterrence and the 9–11 Terrorists," 1.

strategies have addressed all of these components, but not often in the name of deterrence.

a. Desire for Success

"Given the value that terrorists place on operational success, states can deter terrorism by convincing terrorists that operations are likely to fail. For this reason, simple homeland security measures can deter terrorist attacks."[203] Clearly, the earliest (post-9/11) and most visible CT steps of the three denial mechanisms have been toward negating tactical success of acts of terror. These will continue to be at center of CT strategies. However, "it is, of course impossible to protect every conceivable target,"[204] so additional measures might well be taken with the other components of denial strategy.

b. Messaging

The media plays an extremely important role in modern terrorism. Deterrence denial strategies can be greatly reinforced by media restraint or influence. Of course, this is a tricky area, as freedom of the press is widely cherished in our nation. "It is not that the media are unaware of the problematic power of visuals. They just cannot help themselves, given motivations arising out of production and commercial imperatives."[205]

Still, thought-out measures of cooperation might go a long way toward securing against terrorism, and the media demonstrated its willingness and ability to be responsible in the days and months after 9/11.[206] Kroenig and Pavel point to a "voluntary private-public partnership" in Israel whereby the media agrees to "limit the amount of coverage they devote to each terrorist attack, attempting to

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[203] Kroenig and Pavel, "How to Deter Terrorism," 29.

[204] Ibid.

[205] Robert M. Entman, *Projections of Power: Framing News, Public Opinion, and U.S. Foreign Policy* (Chicago, IL: University of Chicago Press, 2004), 104–105.

[206] Entman, *Projections of Power*.

balance the public's right to know with the government's efforts to combat terrorism."[207]

3.   Role in/Relation to Organization

Another way to break down the deterrable threat is to look at where the actors fall in the organizational spectrum. As stated above, the United States has experience in deterrence policy toward state-level adversaries. The critical component to this strategy, other than the actual (or perceived) ability to carry through with the threatened action, is the rationality of the enemy. The Soviet rulers, though they changed over time, were deemed to be rational, although there may have been some more questionable than others. For countries, such as Iran or North Korea, where leadership is of uncertain rationality, deterrence policy can still be enacted, such as sanctioning, but this too can be tricky.

As we move down to the sub-state and organizational level, deterrence options change rapidly, particularly where there is no territory or material wealth to hold threat over, nor political system to work through by way of diplomacy. Even more difficult might be the group or cell level, and down to the individual. However, each of these still offers opportunities for persuasion, if enough is known about the actors, and if the deterrent message is effectively carried to them. In addition, policy aimed at individuals can be applied to parts or wholes of groups and organizations or vice versa, depending on what circumstances warrant.

Terror experts have come up with organizational charts, which break down individuals roles within the structure of the group. These positions are sometimes fluid, as persons may move up the ranks, or perform various tasks over time. Some roles are likely to remain unchanged, however, such as financier or radical preacher. Moreover, in the case of lone wolves, or small, independent, self-radicalized cells (such as the Fort Dix plotters), individuals may take on several roles. Understanding where terror actors fall in the organizational structure,

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[207] Kroenig and Pavel, "How to Deter Terrorism," 31.

particularly on intelligence "left of boom," is useful in designing a program of deterrence targeted at the individual level.

Many authors have demonstrated the increasing disaggregation or decentralization of terrorist organizations, particularly since 9/11. This may inform a shift in the approach to counterterrorism. "If there are multiple individuals in the political system capable of making and executing the decisions we seek to influence, our deterrence strategy will need to have multiple focal points and employ multiple means of communicating a complex set of deterrence messages that in turn take into account the multiplicity of decision makers."[208]

Davis and Jenkins recognized a decade ago: "It is a mistake to think of influencing al Qaeda as though it were a single entity; rather, the targets of U.S. influence are the many elements of the al Qaeda *system,* which comprises leaders, lieutenants, financiers, logisticians and other facilitators, foot soldiers, recruiters, supporting population segments, and religious or otherwise ideological figures."[209] The cumulative study of the radical Islamic terror adversary has revealed these organizational profiles, which terror experts have illustrated. See Figure 1.

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[208] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 33.

[209] Davis and Jenkins, *Deterrence and Influence in Counterterrorism*, xi.
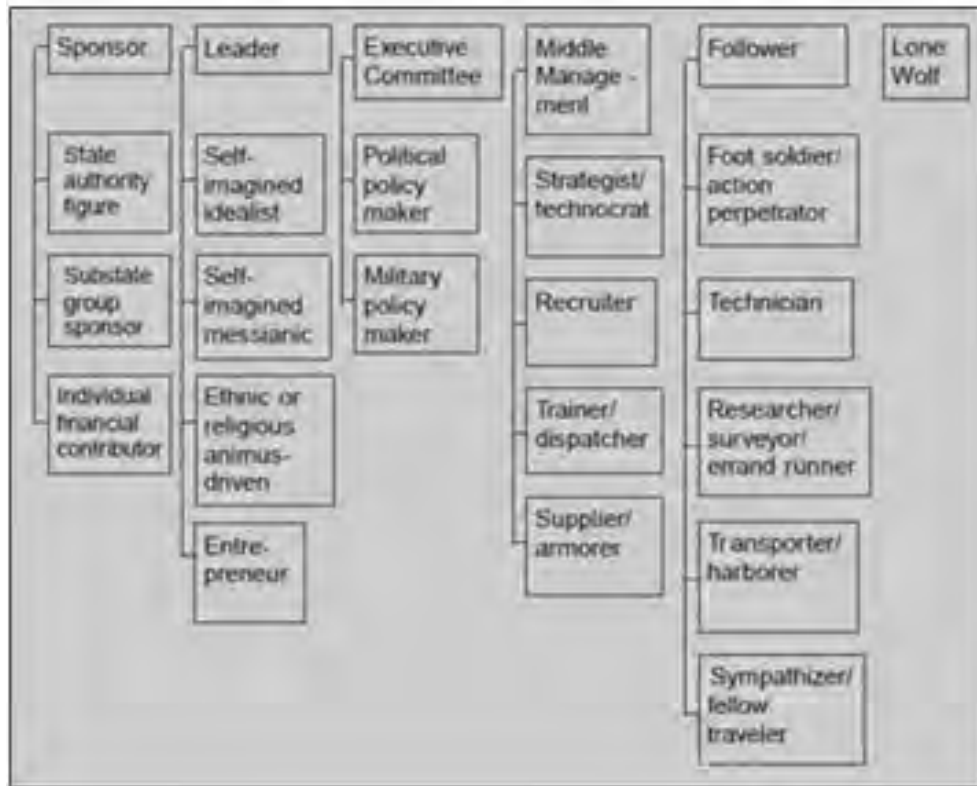
Figure 1.   Roles and Types within Terrorist Hierarchies[210]

Moghaddam offers a detailed breakdown of "Specialized Terrorist Roles" in *From the Terrorist Point of View.* These delineations are similar to that of others, with more areas of overlap than divergence.

- source of inspiration
- strategist
- networker
- expert
- cell manager
- local agitator and guide
- local cell member
- fodder
- fund-raiser

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[210] Victoroff, "The Mind of the Terrorist," 6.

Although it is clear as to where in the hierarchy suicide bombers fall (hint: not toward the top), they offer an exceptional case in the cast. Moghaddam lists them separately as the "poor army's guided missiles."[211] And while suicide bombers have been strikingly absent from the landscape of American soil since 9/11, they continue to haunt populations in dozens of countries and are of tremendous concern and perplexity, and must necessarily be addressed in this or any discussion of counterterrorism. "According to the deterrence model, successfully stopping a suicide attack would require either challenging the terrorists' underlying motivations for the attack or undermining their confidence in its expected success."[212]

4. A Deterrence Framework

The aim of deterrence is to preserve the status quo.[213]

The formation of a deterrence framework has been offered by several authors. While the literature review demonstrated general consensus, but various shadings on methods, Chilton and Weaver offer a useful and theoretically sound, but tentatively implemented foundation for this structure:

> Our deterrence activities must focus on convincing competitors that if they attack our vital interests, they will be denied the benefits they seek and will incur costs they find intolerable. It also emphasizes encouraging continued restraint by convincing them that such restraint will result in a more acceptable—though not necessarily favorable—outcome. The concept itself is fairly simple, but its implementation in a complex, uncertain, and continuously changing security environment is not.[214]

A key to the idea of "a more acceptable outcome" due to restraint comes through U.S. credibility in restraint of its own. Enemies and allies alike must believe that the restraint from terror attacks against U.S. interests will be

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[211] Moghaddam, *From the Terrorists' Point of View,* 123.

[212] Anthony, "Deterrence and the 9–11 Terrorists," 9.

[213] Bowen, "Deterrence and Asymmetry," 58.

[214] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 34.

complimented with likewise non-aggression or benevolence. Chilton and Weaver cite for example, "to deter Saddam Hussein from ordering the use of WMD during Operation Desert Storm in the first Gulf War, the United States issued a threat of devastating retaliation but also made clear that the coalition's war aim was limited to the liberation of Kuwait.

By knowing and understanding the influences on terrorists motivations as well as their needs and goals in committing acts of terror—and we have accumulated a wealth of knowledge in our collective efforts—we are offered opportunities to intervene through the strategy of deterrence. Both kinetic and non-kinetic forms of deterrence are available, and the spectrum should be considered and employed as appropriate.

a.   *Deterrence Spectrum*

Davis and Jenkins developed an inventory early in the war on terror, which offers the general spectrum of deterrence measures giving us a (still) useful framework from which to work, see Figure 2.

Increasing violence

Deter next time by crushing now
Deter next time by defeating now
Deter next time by punishing now
Deter by denial (defeat the attacks)
Deter by increasing risks and disruption
Deter by threat—Hold at risk what is dear to our enemies?
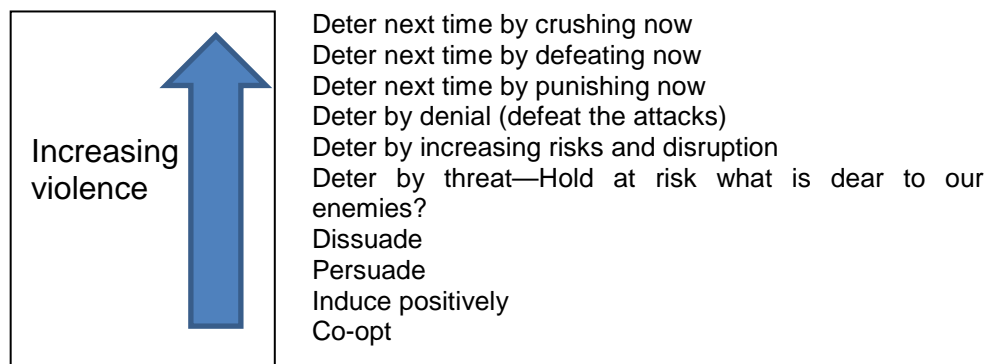Dissuade
Persuade
Induce positively
Co-opt

Figure 2.   Davis and Jenkins's list of deterrence measures in the war on terror[215]

Crushing, defeating, and punishing are violent responses, as indicated by the arrow. To what extent these deterrents have been employed by the United

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[215] Davis and Jenkins, Deterrence and Influence in Counterterrorism, 10.

States might at first glance be deceptive. Certainly, we would equate these to military actions, whether invading forces, drone strikes, or special forces' surgical strikes.[216] We have seen all of these used since 9/11, to varying, but generally high degrees of success. Prior to 9/11, we had the lone punishment enacted was retaliatory air strikes in response to the African embassy bombings. No other retaliation was taken for any of the major terror attacks previously listed—Beirut, 1993 World Trade Center, Mogadishu, Khobar Towers, USS Cole. Using this one pre-9/11 example that would fit, then, we would categorize it as "deter next time by punishing" and judge it to be ineffective, based on the reaction at the time.

As we will discuss, there are appropriate times for the use of these levels of deterrent. We can extrapolate from the threat of nuclear strike against a Soviet nuclear launch to illustrate, however. Any large-scale terror strike or the use of any WMD would constitute appropriate use of the punish/defeat/crush retaliatory deterrence, although the upper most level would call for extreme circumstances.

Deter by denial (defeat the attacks) and *deter by increasing risks and disruption* are shades of a similar strategy. These are promising and stem from the understanding of "what is hoped to be derived from committing acts of terrorism," as discussed above. "Kroenig argued that terrorists value operational success, personal glory, their reputation and honor, and their support in the broader Muslim population."[217]

In many ways, these are the preparedness, intelligence gathering and sharing, and target hardening initiatives that have been in full swing in the homeland since 9/11. Yet there is still much hope and promise in this quarter. While we are facing the stark reality that funds are not unlimited toward these protective measures,[218] there may be ways that policy can pick up the slack. Carnage, fear, timing, location, media, and message are all components of

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[216] May 1, 2010, for example.

[217] Schmitt and Shanker, *Counterstrike,* 51–52.

[218] John Mueller and Mark G. Stewart, *Terror, Security, and Money: Balancing the Risks, Benefits, and Costs of Homeland Security* (New York, NY: Oxford University Press, 2011).

success in terrorism. Mitigating some or even one of these for any given attack would constitute at least partial defeat. Despite the after-attack rhetoric, terrorists are cautious and deliberate in planning attacks precisely because they so highly desire full success for their efforts. Anything less constitutes a deterrent.

Deter by threat, along with the denial and disruption discussed above, is central to this thesis exploration. To this stratum, we will lump in *dissuade*, which is a softer form of the idea of threat. The authors of the framework (Davis and Jenkins), inserted the interrogative *Hold at risk what is dear to our enemies?* directly into the graphic next to *Deter by threat*. Without reading too much into this, we can fairly say that we both did not know as much about what that "dear to" consisted of at the time of the paper's publication (2003) as we do now, and that conditions have evolved so much from that point of post 9/11 haze to now, that the time may be ripe to further explore this. Just as denial and disruption connect back to what we know about the desires for the effect of terrorist acts, threat-by-holding-at-risk-what-is-dear, and dissuasion, can be derived from the knowledge we draw out from the other side of what makes them tick: the psychological profiles.

Finally, we have *persuade, induce positively, and co-opt,* the gentlest forms of deterrence. These would be most appropriate for those at the lowest level of the staircase to terrorism; people who may sense injustice or other of the psychological impetus for potentially moving toward a path of terrorism. There is some evidence, based on terrorism database analyses, that "positive feedback" may be more effective than "negative feedback" when seeking to influence terrorists.[219] The Department of Defense Deterrence Operations Joint Operating Concept, like the Chilton and Weaver citation above, identified "encouraging

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[219] Rose Eveleth, "Can Science Stop Terrorists Before They Strike?" Smartplanet.com, July 31, 2012, http://www.smartplanet.com/blog/science-scope/can-science-stop-terrorists-before-they-strike/.

restraint by making seem more attractive than action," as a third form of deterrence, in addition to "imposing costs" and "denying perceived benefits."[220]

These methods are appropriate for those in groups, which encompass larger numbers of people, particularly the frustrated youth, unlike the higher levels on the staircase. They pose little immediate threat, but are threatened themselves of eventual indoctrination. Moghaddam instructs us, "the young in Islamic communities have been experiencing a deep identity crisis."[221] Young people may be touched by many outreach programs.

More thought and energy should be put into this end of the scale, however, as we are looking for long-term answers. For the purposes of this study, these forms of deterrence are only referenced, and not examined like some of the others. In the United States, forms of community outreach might act toward these forms of deterrence.

b.   Summary of Violent Islamic Extremist General Profiles

The construct of deterrence is based on psychological influences. Understanding of such influences is crucial for deterrence to be effective. This section presented some of the psychological findings regarding violent Islamic extremists as well as generalized roles in the organization, which were discussed in regard to potential analysis toward tailored deterrence. Additionally, a framework was presented by which such attributes could be calculated toward deterrence policy. The roles in organization and deterrence framework will be used together, with the psychology background in the Analysis chapter for calculation in a matrix. Additionally, the following section will offer related data toward an appreciative inquiry into the topic to allow for a broadly discerned analysis.

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[220] Taquechel and Lewis, "How to Quantify Deterrence and Reduce Critical Infrastructure Risk," 3.

[221] Moghaddam, *From the Terrorists' Point of View*, 37.

B. CONFLICTS FOR COMPARISON

1. WWII, Cold War

Prior to holding the threat of mutually assured destruction through atomic annihilation over the Soviets throughout the Cold War, the United States demonstrated its capability and willingness to model deterrence by dropping nuclear bombs over two Japanese cities. Rather than a win based on eliminating strategic targets that would inhibit the Japanese from continuing to conduct the war effort, the bombs sapped the will of headstrong leaders, who saw the prudence in surrendering rather than risk another bomb or bombs being dropped over additional cities.

The scale of the physical threat from Japan was in polar opposition to the current asymmetric war we currently face. Yet some comparisons are inevitable. Not since 1941 have we suffered a foreign attack of that magnitude on our nation. Not since WWII have suicide operatives been so instrumental and influential in the conduct of attacks. Moreover, not since that time have the circumstances impact fears of a segment of American society and corresponding infringements on liberties.

The Cold War is the most notable example of effective deterrence strategy in U.S. history. It differs substantially from the war on terror because of the state versus asymmetric contest, as with WWII Japan, and due to the capability to focus majority of resources at solitary enemy, rather than a dispersed and elusive one. Elaine Bunn summarizes, "During the Cold War, the United States spent enormous amounts of time, energy, resources, and effort trying to understand how the Soviets thought and what might deter them."[222] How unreasonable would it be to replace "Cold War" with "War on Terror" and "Soviets" with "al Qaeda" in this statement?

Many of the authors vetted in the literature review both noted the significance of the Cold War template and the distinguishing features of the

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[222] Bunn, "Can Deterrence be Tailored?" 3.

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application of deterrence towards the terrorist threat. However, despite the recognition of the distinctions and the desire to move the conversation forward, several of these authors fell back to U.S. nuclear deterrence in their strategy analyses with reference to WMD and/or current and future state threats.[223]

Even the potential for nuclear deterrence for state adversaries or state sponsors of WMD does not equate to the Cold War experience. The Soviet Union, as a superpower was a true peer, whereas today we plan for "near-peer" at best,[224] and down from there. The updated views are informative toward state level deterrence strategy, which is currently a concern toward North Korea and the potential for a nuclear Iran.

Whereas the 2010 National Security Strategy references the U.S. maintenance of a nuclear arsenal "to deter potential adversaries and to assure U.S. allies,"[225] when these two countries are singled out in the document, the rebuke detours from the major deterrence with additional intermediate measures: "If they ignore their international obligations, we will pursue multiple means to increase their isolation and bring them into compliance with international nonproliferation norms."[226] One danger here is of signaling inconsistencies or lack of credibility, which has been shown to be crucial to deterrence strategy.

Analysis of the WWII and Cold War deterrence strategies were the substance of a Naval Postgraduate School Master's Thesis by Eric F. Taquechel.[227] His conclusions were that in addition to "mutual perceptions—'self-image and the image of the enemy'—adversary risk propensities and domains arguably influence the outcome of deterrence."[228] He determined that "the risk

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[223] Elbridge A. Colby, "Restoring Deterrence," *Orbis* 51, no. 3 (Summer 2007): 413–428.

[224] Jenkins, *Unconquerable Nation*.

[225] White House Office, *National Security Strategy*, 23.

[226] Ibid., 24.

[227] Eric F. Taquechel, "Validation of Rational Deterrence Theory: Analysis of U.S. Government and Adversary Risk Propensity and Relative Emphasis on Gain or Loss" (master's thesis, Naval Postgraduate School, 2010).

[228] Ibid., 167.

profile of a U.S. adversary against whom the United States would implement deterrence strategy/tactics must be analyzed in depth, with special emphasis on understanding risk propensity and domain."[229]

Based on the assessment that the United States "failed to deter a militarily and economically inferior Japan from attacking the U.S. mainland *prior* to U.S. entry into World War II; however, the U.S. successfully deterred a threat from a larger, more powerful nation during the Cuban Missile Crisis,"[230] an important distinction was that "Japan was already in the domain of loss and risk prone," while the USSR, "in contrast, was also risk prone but in the domain of gains."[231] This may serve to inform in a scaled down application of deterrence, such as with "sources of inspiration" and other leaders, as will be discussed below.

2.   Israel and U.K. Experiences

Israel with its extensive history of battling terrorist strategies and tactics has used deterrence on the asymmetrical level. As might be expected, the full range of deterrence strategies and tactics has been employed. At top end of the list have been kinetic activities taken to the adversary: "Israeli military operations into Palestinian territory were conducted directly in response to terrorist acts. These incursions brought pressure to bear on leaders of the Palestinian Authority and disrupted the activities of Palestinian militants."[232] One view holds that a 'cumulative deterrence' through repeated victories "eventually convinced Arab states that they could not defeat Israel militarily."[233]

Israeli punishment strategies have relied heavily on targeted killings, but have also included the practice of leveling the family house of terrorists,

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229 Taquechel, "Validation of Rational Deterrence Theory," 166.

230 Taquechel, "Validation of Rational Deterrence Theory," 1.

231 Ibid., 166.

232 Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 17.

233 Knopf, "The Forth Wave in Deterrence Research," 14.

particularly suicide bombers.[234] Rather than profit from the act of the bomber, which was the practice of Hamas, the family would stand to lose. "This tactic had mixed success and was used by Israel for a limited time."

Additionally, the Israelis have dabbled in various denial tactics, which deeply rely on psychology. The notion of a practice of wrapping the remains of suicide bombers in the skins of pigs, knowing the religious aversion Muslims have to this animal, and the close connection between the act and the transition to "paradise," has been floated,[235] and even claimed to be used by some.[236] The concept is designed to force this factor to enter bombers' decision calculus in proceeding with an attack.

At the passive end of the range, playing on psychological denial was and is the response of both emergency personnel and nearby citizens to attack sites. Scenes of blood and destruction are quickly and efficiently restored to order by all those in the vicinity of an attack.[237] The idea is to reduce the desired benefit of the terror attack; to cut down on the disruption, media exposure, and fear factor. As discussed above, considering the goals of terrorism, this is an example of deterrence by denial. A Rand study of deterrence concluded that the Israelis takeaway lesson "was to rely more on deterrence, both by punishment and denial."[238]

Like Israel, the British have been countering terrorism for decades in the unrest distilled by the various factions and offshoots of the Irish Republican Army (IRA) in Northern Ireland and in England. As with traditional forms of crime, the jailing of terrorists up the organizational chain was a common attempt at

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[234] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*.

[235] "Burial Plan to Deter Suicide Bombs," CNN.com World, August 21, 2011, http://europe. cnn.com/2001/WORLD/meast/08/20/suicide.bombers/index.html.

[236] Alan Philips, "Settlers Use Pigskin to Foil the Martyrs," *The Telegraph*, February 26, 2002, http://www.telegraph.co.uk/news/worldnews/middleeast/israel/1386104/Settlers-use-pigskin-to-foil-the-martyrs.html.

[237] Robert Wiener, "Israelis Share Expertise in Responding to Terror," *New Jersey Jewish News*, July 23, 2009, http://njjewishnews.com/njjn.com/072309/njIsraelisShareExpertise.html.

[238] Long, *Deterrence: From Cold War to Long War,* 60.

deterrence. Early efforts at denial strategy came as the British Ministry of Defence's engineers developed "a system of electronic countermeasures and jamming techniques for the Army that effectively thwarted" the IRA's development of remote controlled bomb detonators in the 1970s.[239]

> The British, both in their 'counter-atrocities' against the IRA and their strategic bombing of civilians in Mesopotamia, demonstrated that democracies can at times impose very brutal measures. These punitive strategies produced some success in changing NSA behavior, but ultimately turned elite opinion in Britain against London policies.[240]

Much can be garnered from the Israeli and British experiences. However, what differs from the current threat faced by the United States is that both of those nations have been fighting an adversary that is generally cohesive, rather than the al Qaeda ideology, which morphs and spreads via more complex ideas, ideals, and networked cells. Also, although Hezbollah has long used suicide tactics and acts in the name of Islam, the nature of the struggle is one of Ethno-nationalist territory dispute. Sri Lanka also experienced this in a long deadly struggle against the Tamil Tigers. Each of these movements operates from a different set of ideals and motivations than the current radical Islamic threat against the west and the United States. Thus, while learning may take place by what worked and did not work in deterrence strategy, the application to the current asymmetrical threat must be tailored accordingly.

3.   Contemporary Terrorism Deterrence Examples

Just as the beginning of the Cold War did not create the utility of deterrence as an element of national security strategy, the end of the Cold War did not eliminate it.[241]

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[239] Bruce Hoffman, "Terrorism Trends and Prospects," in *Countering the New Terrorism,* ed. Ian O. Lesser, Bruce Hoffman, John Arquilla, David Ronfeldt, Michele Zanini and Brian Michael Jenkins (Santa Monica, CA: RAND Project Air Force, 1999), 32.

[240] Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 18.

[241] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 42.

The current U.S. practice of drone strikes on terror leaders in Yemen, Pakistan, Iraq, and Afghanistan is generally geared towards hard-core terrorist operatives. This is a form of deterrence, appropriate for those in that level of the organization. It is also generally agreed to be the case that few other deterrence options are available for leaders, particularly in overseas places where no other forms of influence can be brought to bear on them, and the cost/benefit of apprehension attempts are too high. The 2006 National Strategy for Combating Terrorism make clear that the "hard core among our terrorist enemies cannot be reformed or deterred; they will be tracked down, captured, or killed."[242]

Whether this is an effective deterrent from the business of terrorism is debatable. Once reaching this level in the organizational structure, it is believed there is little to dissuade these individuals from continuing their acts. Each of them, to a man, would profess his desire to die for his cause. Nevertheless, the strategy is seen as effective from the standpoint of decapitating, which might be viewed as "deter by crushing" on an individual level. One drawback, however, may be that the collateral damage spawns further terrorists over time.

(1)   Details Matter. Perhaps more important considerations from the standpoint of deterrence are the approaches to, and attendant circumstances of death in targeted killings. OBL's death is a prime example of this concept. As a quintessential source of inspiration, bin Laden often spoke of welcoming his own death so long as it served Allah. In other words, he strongly desired to go out a martyr, as he exhorted so many others to do. Once attaining such a position, this rationality becomes the default outlook for a terrorist leader regarding death. In fact, even a lone wolf, as the leader of his own one-man jihad typically claims this stance. Whether OBL truly feared or welcomed death is not important. It is only the perception that mattered. By denying him the chance to go out in a blaze of glory, and disposing of his body properly,[243] but privately, the United States

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[242] White House Office, *National Strategy for Combating Terrorism*, 11.

[243] According to Islamic tradition.

effectively denied bin Laden his ultimate martyr scenario. While it is true that others proclaimed his martyrdom,[244] his fantasy went unfulfilled.

To translate this to deterrence, we would imagine that the next guy (further down the chain) might not be as anxious to ascend to OBL's level, only to go out with a whimper of futility. Similarly, Anwar Awlaki's life ended unceremoniously in a car hit by a massive bomb.

Awlaki was not only the functional leader of al Qaeda in the Arabian Peninsula (AQAP), but a gifted orator who attracted and inspired radical jihadists from the Fort Dix plotters to the Fort Hood shooter. While he attained the "inspirational leader" status, Awlaki demonstrates the power that radical preachers can have. The authors of "How to Deter Terrorism,"[245] illustrated how deterrence can reach this segment of the terrorist tree. Following the 7/7 Metro bombings in 2005, an enraged Tony Blair threatened to pass a law that would call for jailing of radical preachers in British mosques. These words alone caused many of the most radical imams to either change the tone of their sermonizing, or pack up and move their inciting speech to other countries. The lesson to be taken is that the clerics enjoy their lifestyle and freedom, making imprisonment a very effective deterrent for those playing this role in the organization.

4.   9/11, Madrid, London, Pre-9/11

The 9/11 attacks redefined plausibility. Scenarios previously dismissed as far-fetched became operative presumptions.[246]

September 11 was a spectacular success in the eyes of the perpetrators of the attacks, as well as all their enthusiasts and likeminded radicals. Weeks later, we were shown an image of OBL smiling at the video footage of the towers collapsing. Even with the operational failure of the plane taken down in

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[244] What else could they say?

[245] Kroenig and Pavel, "How to Deter Terrorism," 31.

[246] Jenkins, *Unconquerable Nation*, 11.

Shanksville, PA, which ordinarily would have been a devastating failure, the attacks were of epic accomplishment. However, was it complete?

What were the psychological effects of the stories of regular Americans overpowering the hijackers of flight 93 and inhibiting the plane from reaching its intended target? What about the unimagined heartiness of the Pentagon building, which barely sustained any visible damage beyond the point of impact of the plane?[247] And what did all the tales of heroism from the World Trade Center attack, and the constant images and laudation of firefighters and others on "the pile" doing a much heralded job of clean-up and recovery do to the feeling of success of mission? Each of these, if so perceived, constitutes a denial of success, which amount to deterrence.

(1)   Hard Lessons. Can we take these lessons learned in pain and sacrifice, and translate them to a policy that can sustain us through an uncertain future? Kroenig and Pavel maintain that the U.S.'s proclamation that it will shoot down hijacked airplanes following the attacks of September 11, "might already have deterred 9/11-style attacks."[248] As evidence, they cite the change over to shoe/underwear/package bombing attempts as opposed to suicide hijackings.

The lesson from the 2004 Madrid train bombings was unambiguous. The carnage of March 11 directly affected the country's presidential elections, which were scheduled for, and held, three days later. The Socialist candidate, Jose Luis Rodriguez Zapatero, who trailed in the polls, won by a margin of victory that after-polling revealed was achieved by a percentage of voters that changed their minds because of the bombings. The al Qaeda terrorists not only achieved success in the attack, but got a direct victory when the incoming president withdrew Spain's troops from Afghanistan.[249] Beyond that, the victory was highly

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[247] "Hunt the Boeing," Snopes.com, last updated April 8, 2008. http://www.snopes.com/rumors/pentagon.asp.

[248] Kroenig and Pavel, "How to Deter Terrorism," 30.

[249] Moghaddam, *From the Terrorists' Point of View*.

symbolic as Spain is well known as the previous far point of the Islamic caliphate at its height.[250]

The 7/7 bombings of the London Metro one year later held different results than Madrid. Though almost equally successful in terms of the number of separate, near-simultaneous bombings, if not in deaths and injuries, the impact was not the same. Clearly, it was a devastating attack on the city and country, but the pay-off in terror did not equate. One dramatic difference was that three of the four bombings occurred underground—as planned. By an operational fluke, the final suicide bomber blew himself up aboard a double-decker bus. The greatest media images, a vital component of the terror goals, were of this final street scene. The only images to be garnered from the tube bombings were at entrances, which were less spectacular.

(2)   Lessons of Past Attacks. A review of the major terror attacks on U.S. interests prior to 9/11 is also worth assessing in the context of outcomes, so that some points about payoff might be inferred for use towards deterrence.

Terror attack	Result	Payoff
Beirut	U.S. Withdrawal	Success, emboldened
Mogadishu	U.S. Withdrawal	Success, emboldened
1993 WTC	Arrests	Partial success, no deterrence
Khobar Towers	No action	Success, emboldened
Kenya/Tanzania	Targeted Air Strikes	No deterrence
USS Cole	No action	Success, emboldened

Taken together, U.S. action, or inaction, failed to measure up to any form of deterrence following these attacks. In fact, to listen to OBL or others, the terrorists were in fact emboldened following each of these. "Bin Laden, himself, made reference to the withdrawal of the U.S. Marines from Beirut in 1983 after

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[250] See for example, Moghaddam's discussion of "living-history cultures" in *From the Terrorists' Point of View.*

the Marine Corps barracks were struck by a Hizbullah suicide truck-bomb. He also noted a second American retreat in the case of Somalia in 1993."[251] The 2006 *National Strategy for Combatting Terrorism* proclaims, "the terrorists are emboldened more by perceptions of weakness than by demonstrations of resolve. Terrorists lure recruits by telling them that we are decadent, easily intimidated, and will retreat if attacked."[252] According to Gerald Steinberg, "the growth in ambitions of the new global terrorism, like that of bin Laden, can be directly tied to the erosion of Western (and even Russian) deterrence as perceived by militant Islamists over the last two decades."[253]

(3)   Summary of Past Attacks. In summary, we may derive three lessons from these attacks and the responses to them. First, deterrence strategies can and should be specifically tailored to an individual's role within the organization. Targeted killing is appropriate for leaders, and should be done in a way to minimize the martyrdom effect. Other strategies are more appropriate for others down the chain, such as threatened imprisonment or loss of assets for radical preachers or financiers, whose lifestyle is important to them. The leader or the suicide bomber, by contrast, would not likely be persuaded in this way.

The second lesson here is that both capitulation and non-action are likely to amount to the opposite of deterrence. Whether withdrawing troops or changing the choice of a political candidate, capitulation acts as a catalyst to further terrorism, and in the hands of a skilled speaker, inaction can have just as great an effect.

Moreover, the final lesson is that deterrence by denial is effective. The mere act of draping a sheet over a hole made by a bomb, reducing imagery of destruction and carnage, or displaying resiliency and spirit as a people effectively denies terrorists the full impact of their investment into the attack. As one of the

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[251] Gerald M. Steinberg, "Rediscovering Deterrence After September 11, 2001," *Jerusalem Letter/Viewpoints*, no. 467 (December 2001): 3.

[252] White House Office, *National Strategy for Combating Terrorism*.

[253] Steinberg, "Rediscovering Deterrence After September 11, 2001," 3.

less aggressive and more cost-effective prospects, this strategy should be more vigorously investigated and pursued.

5. Other Examples: Crime, Gangs, Graffiti

Associations made between crime deterrence and terrorism deterrence must be carefully considered, because by and large, terrorists are not motivated or influenced by the same things as criminals. "Criminal deterrence puts cops on the street and bars over windows—and prisons in our communities—to force potential lawbreakers to weigh costs and benefits before deciding whether or not to engage in illegal activity."[254]

Yet, there are some useful corollaries. The 2003 study of the "Deterrence and the 9-11 Terrorists" assessed much of the data based on extensive knowledge of drug smugglers' points of reaction in light of deterrence strategies. There are some strong relational qualities between drug cartels and terror groups (and many of these have strengthened in recent years).[255] There have been some grassroots efforts to make connections between terrorism and gangs and narco-gangs, in the hopes of developing solutions. There are many similarities when it comes to organizational structure and tactical maneuvering. However, the motivations and sensibilities of drug smugglers and religiously inspired suicide bombers are not likely consistent.

START's[256] Erica Chenowith points out that, "Strategies that successfully deter common criminals may be ineffective for terrorists…because terrorists are generally less concerned about being punished and more concerned about their role in ensuring the well-being of their movement and its constituency."[257] While this is likely true for the hardcore, it is a blanket statement of "terrorists." As we

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[254] Schmitt and Shanker, *Counterstrike,* 5.

[255] Michael Braun, "Drug Trafficking and Middle Eastern Terrorist Groups: A Growing Nexus?" The Washington Institute for Near East Policy, Policy Watch #1392, July 25, 2008, http://www.eisf.eu/resources/library/DrugTraffickingMiddleeastTerrorGroups.pdf.

[256] National Consortium for the Study of Terrorism and Responses to Terrorism.

[257] Eveleth, "Can Science Stop Terrorists Before They Strike?"

shall see, there are actors within the system of terrorism that may well be concerned about punishment, and that what constitutes punishment may also vary from the typical incarceration meted out to criminals.

a.   Recruiting

Viewed with this in mind, the comparisons can be valuable. One important commonality between them is the recruitment of at-risk youths. In this way, deterrence strategies at the lower end of the hierarchy, such as co-opting and dissuading might offer useful lessons. As stated earlier, these are not the core focus of this study, however.

The at-risk youth segment does feed gang populations, a major force in criminal activity. "A recent innovation in policing that capitalizes on the growing evidence of the effectiveness of police deterrence strategies is the focused deterrence framework, often referred to as pulling levers policing. Pioneered in Boston as a problem-oriented policing project to halt serious gang violence during the 1990s, the focused deterrence framework has been applied in many U.S. cities through federally sponsored violence prevention programs."[258]

The "pulling levers" deterrence programs concentrate on reducing violence and crime associated with gangs. "The deterrence message was…a promise to gang members that violent behavior would evoke an immediate and intense response from law enforcement."[259] A review of these strategies determined they "can be effective in controlling specific crime problems when they engage in a variety of partnerships and tailor an array of tactics to address underlying criminogenic conditions and dynamics."[260]

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[258] Anthony A. Braga and David L. Weisburg, *Pulling Levers Focused Deterrence Strategies to Prevent Crime*, no. 6 of Crime Prevention Research Review (Washington, DC: U.S. Department of Justice, Office of Community Oriented Policing Services, 2012), 4.

[259] Ibid., 11.

[260] Ibid., 20.

b.   Lessons of Graffiti

Another useful comparison, often associated with gang activity, might be of graffiti "artists," who are not killing anyone, but committing property crimes against society. For non-gang related taggers, "rather than being a senseless destruction of property, graffiti fulfills certain psychological needs,"[261] including anger and hostility issues and ideological grievances, offering a viable comparison to the "what do they want" aspect of terrorism. The obvious deterrents to this crime are the same as with others: civil and criminal punishments, such as probation, fines, community service, and jail time. On the non-punitive side, however, officials have learned that rapid "removal of graffiti has been shown to reduce its occurrence. This approach directly addresses the motives of many offenders."[262] Because taggers desire the notoriety that comes with the visible fruits of their labor, it was learned that removing, cleaning, or covering the graffiti immediately, prior to sunrise if possible, would greatly diminish the return on investment of time and energy, and thereby act as a deterrent. This deterrence by denial—in this case exposure toward acclaim—is very similar to the Israel concept of quickly sanitizing terror attack scenes.

c.   Summary of Conflicts for Comparison

This section surveyed the deterrence landscape ranging from World War II and the Cold War, to Ethno-national insurgency-based terrorism, to post-9/11 experiences and other crime-related analogies, to offer a rich appreciative inquiry into the topic of this thesis. These experiences will be factored in, along with the topics of next section, which include the various forms of deterrence, along with related attributes, for deeper understanding toward the analysis.

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[261] Deborah Lamm Weisel, *Graffiti*, Problem-Oriented Guides for Police Problem-Specific Guides Series no. 9 (Washington, DC: U.S. Department of Justice, 2004), 7.

[262] Weisel, *Graffiti*, 20.

C.   APPLIED TYPOLOGIES OF DETERRENCE

1.   Deterrence by Punishment

One form of deterrence would involve the overt threat of some retaliatory action, should an attack against the United States, its interests, or allies take place. This is deterrence as it is widely perceived, such as imprisonment for conviction of a crime or a nuclear strike in retaliation of serious state-level aggression. As discussed above, one effective and well known method that has been imposed in the asymmetrical environment is the use of drone strikes. To categorize these based on the distinctions listed above, they typically target individuals or small groups, usually hit a leader figure, and in all cases occur in limited, pre-determined places abroad. Despite effectiveness, this retaliatory deterrence would be inappropriate should any of the parameters change: location of actor, size of targeted group, or perhaps role in organization.

a.   *Economic Punishment*

A very different, yet powerful retaliatory measure, which has been used in the war against terrorism, is economic denial. The seizure or freezing of assets is a time-tested measure, and was strategically emplaced and carried out from the earliest time in the war on terror. There is evidence that just the threat of asset forfeiture from terror money being funneled from wealthy Saudis put a halt to that source of funding. It can be an effective tool at the state level, as well as for many actors through the terror organization, and even tangentially. For example, it is well known that families of suicide bombers have been paid in reward for the act, as has been Hezbollah policy.[263] Turning this around could be a persuasive deterrent to a suicide bomber, who may be willing to give his life, but would still care about the welfare of his family. If the potential bomber believed his family stood to *lose* financially, rather than gain, he might be dissuaded from acting. And if the family was complicit in the act in any way, either by way of giving

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[263] Don Radlauer, "Rational Choice Deterrence and Israeli Counter-Terrorism," Institute for the Study of Asymmetric Conflict, accessed August 22, 2014, http://www.asymmetricconflict.org/articles/rational-choice-deterrence-and-israeli-counter-terrorism/.

blessing, comfort, encouragement, or even passively so, the retaliatory deterrence might well transfer beyond the organization to them.

b. Punishing Suicide Bombers

Another retaliatory measure that might be taken against a would-be suicide bomber would be pre-instilling some psychological pain in response to the murderous act. Psychologists have told us that perceived shame is an overriding cause of anger among the Muslim world. The sense of shame is tied to American foreign policy, rightly or wrongly, and pushes some up the staircase of terrorism. While many worldly effects might lose their meaning to a young man preparing for a suicide mission, the belief that the act would bring shame upon him and his family might be more than he would be willing to bear. In fact, as with kamikazes, suicide bombers are taught to believe that their act is honorable and will cause them to be heralded. Efficacy in this may only be a matter of figuring a way to impose that shame, connected to the act, and making the retaliatory intention well known.

Undoubtedly, the suicide terrorist presents one of the most confounding problems to U.S. CT efforts, as well as the many nations that are at risk from fundamentalist Islamic terrorism. Where deterrence seems like a less than viable option, it is vitally important to discover the ways that it can be used based on the difficulties in countering this threat, and apparently deep pool of willing candidates.

2. Deterrence by Denial

Denying benefits may be the most effective means available, especially if the non-state actor's organization is small and/or well distributed.[264]

"When considering deterrence, many analysts think solely in terms of deterrence-by-retaliation, but deterrence theorists also advanced a second type

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[264] Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0,* 66.

of deterrence strategy: benefit denial, or deterrence by denial, strategies, which contribute to deterrence by threatening to deny and adversary the benefits of a particular course of action."[265] The idea plays off what we know about the goals of terrorism, and that disrupting attacks, even to a degree, denies the enemy from the satisfaction of success of the act. Given the assets being invested into the attacks on the part of the groups and individuals, terrorists highly prize mission success. "The aim is to sow the seed of doubt in an opponent's mind by undermining confidence in his capability to achieve the desired outcome."[266]

Citing Princeton Professor Glenn Snyder's 1961 assertion that "a denial strategy may even 'be the more powerful deterrent' because threats to attempt to deny an attack are inherently more credible than threats to retaliate in response to an attack,"[267] Kroenig and Pavel offer denial as an important prospect in applying deterrence to asymmetrical actors.

The NIPP study identified several denial measures employed by states to deter NSAs. Broadly, they included disruption of operations, eliminating sanctuaries, "anti-terrorist laws, establishment of specialized response capabilities to counter NSA tactics (e.g., commando units for hostage rescue), military operations to disrupt NSA activities, and refusal to negotiate with NSAs."[268] U.S. CT policy has already instituted a great many measures that may be considered deterrence of terrorism by denial. Hardening of targets, preparedness, and mitigation all serve to decrease the likelihood of success of acts of terrorism, or soften the impact of such attacks. The 2006 National Strategy for Combating Terrorism identifies this strategy: "While it is impossible to protect completely all potential targets all the time, we can deter and disrupt

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265 Kroenig and Pavel, "How to Deter Terrorism," 23.

266 Ibid.

267 Kroenig and Pavel, "How to Deter Terrorism," 23.

268 Garrity, Bar, and Payne, *Deterrence and Coercion of Non-State Actors*, 14.

attacks…through strategic security improvements at sites both at home and overseas."[269]

a.   Threat to Success

Armed with the knowledge that "the terrorist actors themselves are often concerned about operational risk—they may be willing to risk or give their lives, but not in futile attacks,"[270] many manifestations of denial may be enacted to discourage individual attacks, which would ideally then have a cumulative effect. Shift of time and place for example, may gradually decrease attempts, viewed as not being worthwhile. That is, terrorists set their sights on a particular location and/or time of attack. If they are unable to act as they desire, they may either abandon the effort or find it less than satisfactory after the fact, and be less inclined to act the next time when their chosen time and venue are inaccessible. "Thus, better defensive measures can help to deter or deflect, even if they are decidedly imperfect."[271]

A related strategy might be employed to dissuade suicide bombers by denial. Similar to the development of interrupters of remote detonators, developed by the British to overcome technological advancement of IRA terrorists in the early 1970s, a technical remedy developed to disrupt the explosive vest and made known would give pause to those endeavoring in these operations. Currently, if sensing detection, the suicide bomber merely detonates on the spot to inflict the greatest damage before being isolated. This scenario does not offer a deterrent, because the likelihood and cost/benefit are weighed against success. Once the bomber blows himself to bits and pieces, he no longer has the need or opportunity to evaluate his choice. The alternative of being taken alive and humiliated is rarely experienced, and therefore not of concern. However, if a tool is developed that could disrupt a detonator from a distance, the

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[269] White House Office, *National Strategy for Combating Terrorism*, 13.

[270] Davis and Jenkins, *Deterrence and Influence in Counterterrorism*, 16.

[271] Davis and Jenkins, *Deterrence and Influence in Counterterrorism*, 16.

bomber would then be faced with the prospect of being disarmed before he knows is aware of the intervention, or at least at a point too late, and being left alive to be arrested and live with the consequences of his failed attempt.

b.   Psychological Deterrence

Other forms of denial have less to do with the tactical success of an attack, and focus more on the psychological impacts. Some deterrence theorists have suggested religious refutation of the rewards of terror attacks as a strong persuasive deterrence by denial. A core belief in radical Islamic terrorism is the sanctioning of the act and awaiting rewards by Allah. Influential Muslim clerics with strong voices opposing the radical preachers whose sermons and fatwas hold such sway would be a substantial counter and a firm form of deterrence by denial. Implementation of this strategy remains elusive, but there are encouraging signs.

The Israel model of denial based on swift cleansing of the scene of attack offers some prospective work in the area of deterrence. Simply put, the less impact the act of terror is *seen* to have, the less likely the act is to be carried out. There are many avenues into this form of deterrence by denial to be explored. The value of this method for Israelis hinges on the national acceptance and commitment to battle terrorism as a way of life.

(1)   Resiliency. We have not reached the point in the United States where the public is widely ready to engage in the displays of resiliency as civic duty, as seen in Israel. (The hope is that we will never need to). However, the latest CT strategies build off the concepts of community strength and resiliency as core components.[272] One of the most promising, and logical steps to be taken in ongoing counterterrorism has been offered in the proselytizing of the concept of resilience over the last several years. Our leadership is coming to grips with the notion that, "Americans have come to hold unrealistic expectations about

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[272] White House Office, *Empowering Local Partners to Prevent Violent Extremism in the United States* (Washington, DC: The White House, 2011).

security, believing that risk can be abolished."[273] Instead, there is rational understanding that it will be impossible to completely and indefinitely protect the homeland from all terror attacks. "Some deterrence can be achieved by demonstrating that terrorist attacks will not bring the United States down or cause it to close itself down and that the nation is able to take punches, recover, and hit back very hard."[274]

With this in mind, the best response to "attacks that do occur" is physical and psychological resiliency. "States may also be able to achieve deterrent effects by developing and publicizing their resilience, including through adequate disaster planning and emergency response systems."[275]

(2)   American Strong. Indeed *resiliency* has increasingly become a catchword in homeland security, and for good reason. The ideal straddles both proper planning, infrastructure protection and redundancy, and psychologically prepared citizenry. The last of these is the most difficult (but least costly) to institute. "States also can deter terrorism by denying terrorists the ability to cause panic in society,"[276] however, indications are that we have a long way to go in this area. Some of this work is evident from the overreaction to some of the threats and false alarms that the nation has experienced in the past decade. "Instead of the stoicism needed for a long fight, Americans remain vulnerable to overreaction. A terrorist attack of even modest scale could provoke paroxysms of panic."[277] A strong partner in this, for better or worse, is media.

Thus, there may be ways of tweaking actions of responders and responding media to influence scenes of terror attacks. To illustrate, we can use an extreme example based on 9/11. If, for instance, the only images to come

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[273] Jenkins, *Unconquerable Nation.*

[274] Davis and Jenkins, *Deterrence and Influence in Counterterrorism,* 38.

[275] Kroenig and Pavel, "How to Deter Terrorism," 30.

[276] Ibid., 31.

[277] Jenkins, *Unconquerable Nation.*

from the World Trade Center site[278] were of the rescue, recovery, and clean-up after the attacks, and not the planes flying into buildings, terrorized citizens fleeing up the avenues, fire victims jumping to their deaths, and buildings coming down, would the impact have been the same? In other words, would the terrorists and those of like mind on the (figurative) staircases below them have had the same satisfaction? If the answer is "no," then that would comprise a deterrence by denial.

3. Tailored Deterrence

In the scrambling haste of the post-9/11 national response to homeland security, one of the most daunting obstacles in applying the Cold War strategy of deterrence to asymmetrical foes was the impossible concept of trying to influence countless clandestine individuals—whom were seemingly poorly understood. Even if terrorist were found to be rational and it could be discovered that they did have things "held dear," the inescapable reality held, "If deterrence is about influencing the perceptions—and ultimately, the decisions and actions—of another party, it is logical that the requirements for deterrence will differ with each party that we might try to deter and may well differ in each circumstance or scenario."[279]

Indeed, the notion of tailoring deterrence is both the greatest innovation needed in the application to terrorist groups and individuals, and seemingly the greatest potential toll on resources. Yet, "although *tailored deterrence* is a new term, the concepts underlying it—the need to adjust deterrence to each of a wide range of potential opponents, actions, and situations, and a wider range of capabilities that contribute to deterrence—are not new and have been evolving for some time."[280]

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[278] Commonly referred to as "ground zero."

[279] Bunn, "Can Deterrence be Tailored?" 3.

[280] Ibid., 2.

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Even among scholars who have agreed that deterrence is a worthwhile pursuit, the consensus is that tailored deterrence is the way forward for the 21st century threat environment. Elaine Bunn further proposed in "Can Deterrence be Tailored?" that, "a more refined understanding of *each of the actors* that the United States is trying to deter is essential to tailored deterrence, and how to gather the pertinent information (from both governmental an non-governmental sources) and make it relevant for deterrence planning will be a challenge."[281]

Working in favor of a tailored deterrence are the unparalled investments that have already been made into understanding the adversary over the past decade, and the relative calm we are experiencing in the homeland at this time. Chilton and Weaver point up the importance of "peacetime (or 'Phase 0') activities" toward tailored deterrence campaigns. "Peacetime activities can make use of deterrent means that take time to have their desired effects or that require repetition to be effective. They expand the range of deterrence options at our disposal."[282] Additionally, if deterrence is about maintaining the status quo, peacetime is the logical starting point.

In addition, as previously identified, credible communication of such deterrence is critical to effectiveness, particularly in times of relative calm. Leaders and policymakers must find ways to message deterrence, and find needed "mechanisms to assess how their words and actions are perceived, how they affect each adversary's deterrence calculations, and how they might mitigate misperceptions that undermine deterrence."[283]

4.   Scope of Terror

Thus far, all of the discussion regarding the asymmetrical threat environment has focused on the conventional types of attacks and weapons used in this theater, namely explosives, firearms, and fires. The logic behind this

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[281] Ibid., 7.

[282] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 34.

[283] Bunn, "Can Deterrence be Tailored?" 1.

is simply that these have been the preferred weapons of the enemy over the past two decades: i.e., London, Madrid, explosives; 9/11, fire, Mumbai, all three. Generally, the analysis here centers primarily on these typical styles of attack, although there are many others that we fear possible.

Two other types of attacks worth considering, chosen not for their likelihood, but for the distinctiveness compared to the others are WMD and cyber. Of WMD, the 2006 National Strategy for Combating Terrorism is unambiguous: "We require a range of deterrence strategies that are tailored to the situation and the adversary. We will make clear that terrorists and those who aid or sponsor a WMD attack would face the prospect of an overwhelming response to any use of such weapons."[284] As evidenced in the discussion of post-9/11 strategies above, the strength and clarity of this statement is beyond all other references to deterrence in the national strategies. The reasons for this are the separate category that WMD comprise, offering an unchallenged response decision, as well as the comfort zone established by the related Cold War deterrence policy. If we develop a spectrum of deterrence responses based on these types of attacks, many of the other possibilities may be extrapolated, but are otherwise more readily implemented.

5.   Summary of Data

This section attempts to accrue some of the significant variables necessary toward constructing a tailored deterrence of violent Islamic terrorism. The Psychology section offered a glimpse into who they are and what may motivate them. The Conflicts for Comparison was an appreciative inquiry into related or relatable experiences, and the Applied Typologies looked at options and factors to be considered for such tailored deterrence. The next section provides the analysis of all that has been presented, using the visual aid of a matrix, which is constructed off the data presented here.

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[284] White House Office, *National Strategy for Combating Terrorism*, 14.

IV.   ANALYSIS

A.   DETERRENCE CHOICE VS. INDIVIDUAL ACTOR MATRIX

The matrix (Table 1) presents a visual portrayal of the 10 deterrence strategies as offered by Davis and Jenkins, contrasted by the nine distinct roles played in modern terror organizations as identified by psychologist Fathali Moggahdam.[285] Each intersecting strategy and role is then scored based on the chance of success that a given deterrence method might have on a given actor. The ratings, 1–5 indicate the level of expected effectiveness, with five being highly effective and one representing least effective. The numbers are derived from the author's interpretation of the evidence presented in section IV, which includes outcomes from actual terror attacks and plots, previously implemented deterrence strategies across the spectrum of disciplines and settings, and the literature on deterrence strategy, both historical, and specifically designed for the new asymmetrical threat environment.

Table 1.   Visual Portrayal of the 10 Deterrence Strategies

	Crush	Defeat	Punish	Denial	Disruption	Threaten	Dissuade	Persuade	Induce	Co-opt
Ideological Leader	5	4	3	2	2	3	1	1	1	1
Tactical Leader	5	5	3	4	3	3	1	1	1	1
Lieutenant	4	4	2	2	2	4	2	1	1	1
Foot Soldier	3	3	2	3	3	4	3	2	1	1
Financier	3	2	2	3	3	5	3	3	2	1
Radical Preacher	1	1	1	2	2	5	3	2	1	1
Haven Provider	5	4	4	1	1	4	4	3	2	1
Suicide Bomber	1	1	1	4	5	4	3	2	1	1
Lone Wolf	5	5	5	5	4	3	2	1	1	1

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[285] Moghaddam, *From the Terrorists' Point of View.*

B. ANALYSIS OF MATRIX

Three patterns and one overriding instruction emerge from reviewing the deterrence choice/individual actor matrix. The first pattern, beginning at top left, is that greater kinetic deterrence, or what Davis and Jenkins term "increasing violence," are rated as appropriate for those at the higher ranks of the terror organization. The concepts of "crushing," "defeating," and "punishing" gradually tail off in effectiveness as we range down the hierarchy of the terror organization. The two places these bottom out, signifying ineffectiveness, or at least serious doubt about effectiveness are with the Radical Preacher and Suicide Bomber.

Taking each of these separately toward elucidation, the Radical Preacher has little to lose by an organization suffering military defeat, since he is promoting a cause or an ideology, and is not constrained to a specific warring entity. What's more, these types of responses actually feed the cause of the Radical Preacher, as they are able to point out the injustice in them and use the violence against *Muslims* as a tool for recruiting/contributions.

For the Suicide Bomber, as has been expressed, anything relating to fear of harm or death is unlikely to constitute a deterrence. If the crushing/defeating/punishing is directed at those in the organization that he is acting as a minion for, this of course may delay or completely disrupt his mission. However, the matrix is designed to express what deterrence strategies would affect individuals in an organization, and not what may impact the rest of the organization, from the standpoint of deterrence. Therefore, the vertical columns only pertain to each of the actors individually, and do not carry down through the organization (or matrix).

The second pattern—which is actually two patterns—that is notable within the matrix results, is the progression of numbers for the Lone Wolf and the Suicide Bomber. For the Lone Wolf, the numbers descend in order from the greatest violence to the softest of deterrents. This is likely explained in that for the Lone Wolf, all of the roles in the organization are generally fulfilled by the sole

individual. The only exception would likely be Radical Preacher, because many are radicalized through the internet and other media, and even mosques. Because the one person fills all the roles, those strategies that would have greater impact over the higher parts of an organization would have more sway, and the effects are cumulative. Also, as a "loner," this individual is less likely to be persuaded by the softer approaches, and may hold little other than his beliefs of value.

With the Suicide Bomber, we see something of a bell curve in the numbers. This person is not likely deterred with the hardest or softest of strategies. However, the high marks in the middle of the range offer great hope toward the enigma of deterring this actor.

The third pattern to emerge from the matrix is the evidence of which deterrence strategies appear to be most promising on the whole. Mathematically, without regard to the actual numbers of each category of actor that may need to be deterred (many more Suicide Bombers than Ideological Leaders), the average scores were as follows:

Threaten 3.5; Crush 3.1; Defeat 2.9; Denial 2.6; Disruption 2.5; Punish 2.3; Dissuade 2.2; Persuade 1.6; Induce 1.1; Co-opt 1.0

Crush and Defeat are those things that everyone understands; the actions that we have been taking; the choices with some of the highest costs—both in terms of dollars and political capital. Along with Punish, these have a place in the war on terror, as discussed above.

Dissuade stands out of the "soft power" end of the spectrum. Where Persuade, Induce, and Co-opt hold little value toward the terror actors listed, primarily because they have presumably already made the choice to pursue terrorism as a calling, they should be applied to vulnerable cohorts where there is still a chance to steer clear of this decision. "The distinction between *deterrence* and *dissuasion* is often confused," according to Elaine Bunn. "While deterrence is focused on convincing and adversary not to undertake acts of aggression,

dissuasion is aimed at convincing a potential adversary not to…go down an undesirable path, such as acquiring, enhancing, or increasing threatening capabilities."[286] Application of this influence on a nuclear ambitious Iran is a clear example of this distinction. It is more difficult to find plausible, practical applications toward would-be/wanna-be terrorists, however.

What remain are Defeat and Denial (of attack/success of attack) and Threaten (what is dear to our enemies). Coincidentally, these fall under the more recent school of thought for deterrence, especially if we look at some of the possibilities that are being developed to specifically target the asymmetrical threat. Each of these categories may be additionally scrutinized, but shy of that, it brings us to the overriding instruction that is evidenced by the matrix.

Where encouraging options exist in the middle of the range of deterrence strategies listed, it is important to recognize that patterns are only generalizations. In addition, where we are dealing with highly variant psychological cares and concerns, based on individuals' role in the terror group, the best use of a visual like this is the understanding that strategies are best tailored to whatever degree practical.

C.   ADDITIONAL MATRICES FOR CONSIDERATION

Three additional matrices were considered for inclusion in the analysis of the data above in comparison to types of deterrence: Internal (homeland) vs. External act; Internal vs. External actor; Type of attack (bomb, bio, nuke, knife). Instead, each of these will be addressed here with explanation.

1.   Internal vs. External Act/Threat

One of the principles of the Bush Doctrine, was that the United States makes no distinction between terrorist acts against us in the homeland, or those overseas against our interests or our allies. Whatever the fallout or reassessment

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[286] Bunn, "Can Deterrence be Tailored?" 2.

of the doctrine on the whole, this piece of it remains intact.[287] Looking backward from 9/11, and as expressed in review of the terror attacks as presented above, had the United States promoted this policy in response to the Cole, Khobar Towers, and Beirut bombings, circumstances may have carried out differently.

Going forward, there is little if any reason to make distinction between attacks in the homeland and against us and our allies abroad. In addition, just as globalization increasingly contributes to the root causes of terrorism, it only bolsters the rationality of this view. To turn the problem around for analysis, we can imagine how injustices, real or exaggerated, toward Muslims in the homeland would be perceived by those espousing radical Islam abroad. The answer is self-evident.

2. Internal vs. External Actor(s)

In general, *deterrence strategy* should not be altered based on the physical location of a terrorist perpetrator—in the homeland or in a sovereign nation abroad, friendly or otherwise—or whether said actor is a U.S. citizen or not. To be sure, the *tactic* employed based on a given strategy may be altered based on these factors. Kinetic actions tied to the upper portion of the deterrence spectrum, or our ability and opportunity to disrupt, deny, or threaten them is highly dependent on the internal vs. external reality. Again, turning it around, terrorist are capable and willing to adapt to constraints imposed based on the laws and customs of a particular locale. When it comes to deterrence strategy, it should remain tied to what is decided based on individual or group identity, and then applied within the bounds of legal and (American) value issues. One notable caveat as it pertains to this question, for terrorists located in unfriendly places, it may be possible to focus punitive efforts toward the harboring nation—similar to the central theme of the Bush Doctrine. This would be especially fitting where WMD are involved.

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[287] The 2010 National Security Strategy distinguishes in defending against al Qaeda and its allies (read, "radical Islamic terrorists") attacks "especially against the U.S. homeland," However, based on the logic presented in this section, and throughout the paper, no distinction is made.

3. Type of Attack/Plot

The final variable considered for evaluation by matrix vis-à-vis deterrence strategy is type of attack or plot. Does the scope of an attack or the type of weaponry used make a difference in the way we approach deterrence policy,? The answer here is yes and no. As mentioned earlier, WMD or cyber attacks would constitute very different circumstances than the operating model we are drawing from involving traditional terror tactics. Should one of these paradigm changers enter the equation, the policy would rightly change in *proportionality*. There would really not be much reason to adjust strategies of deterrence. Some other attack methods are worthy of discussion toward the formulation of deterrence strategy:

One of the stunning realities about the 9/11 attacks was that the 19 hijackers were willing to sacrifice their lives in service to their cause. Americans understand sacrifice as well as anyone, but the idea of killing yourself just so you could kill so many others is a bit harder to comprehend. This attack vaulted the concept of suicide terrorist into the American psyche, and despite the lack of even a follow-up suicide attack on our soil since then, the suicide bomber continues as a conundrum for us to this day. If we are to enact CT policy, it must account for the suicide attack on our soil. To that end, for deterrence policy to be effective, it must account for this eventuality.

Also, as was noted, radical Islamic terrorists, suicide or otherwise, continue to select trains and planes as targets, primarily for the potential of confined masses of innocent people. While other venues, such as stadiums or other large gathering places might make attractive targets for some of the same reasons, we must strongly consider these when developing deterrence models. In conclusion, while additional matrices counting the variables of location of act, location of actor, and type of attack might be illuminating, it was assessed that the model would not alter substantially as a result.

D. TESTING AND ANALYZING

Cold War deterrence policy was a gamble. There was simply no way of knowing if it would work. Empirical testing of the latest wave of deterrence strategy is limiting also. "Instead, the work has been mainly conceptual and policy-oriented."[288] Employing a deterrence policy consisting of multiple variables of strategies and tactics based on theory may be more than most policy makers might be comfortable with. In addition, not only might testing be a problem, but analysis may prove to be just as elusive.

Knopf also makes the case that "asymmetry has mixed implications," and that while Cold War deterrence offered zero room for testing error, "one or even a handful of deterrence failures would not vitiate the value of deterrence. Because a single deterrence failure does not risk complete destruction of the country, the standard for evaluating deterrence has changed from the Cold War."[289]

Possibly the best way to determine if the policy is effective is generally the same way our CT efforts on the whole are analyzed. After all, if there has not been an attack, how is it evaluated whether that is a function of effective policy or some other variables? One way of knowing is through the insight of captured communications between those within the terror network, or interrogations of captured terrorists themselves.

The DO JOC offers another difficulty in measuring effectiveness: "The US may be unable to determine what specific deterrence actions successfully deterred an adversary from taking a specific course of action, or even whether adversary restraint indicated deterrence success. This could hamper efforts to learn from past successes, or lead to false confidence in certain past deterrence actions or approaches."[290]

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288 Knopf. "The Forth Wave in Deterrence Research," 1.

289 Ibid., 4.

290 Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0,* 25.

As resolution, The DO JOC framework offered three broad steps to provide analysis of effectiveness:

- Develop an in-depth understanding of adversaries' decision calculations

- Develop and assess tailored, adversary-specific deterrent COAs

- Implement and monitor the impacts of tailored deterrent COAs[291]

If these uncertainties are cause for hesitation in implementing strategies of deterrence, it may be worth asking what the cost of such a policy would be. Considering the fundamental component of deterrence is generally the *threat* of some action, should any kind of attack take place, or plot uncovered, the costs are minimal, and mostly absorbed in security measures being undertaken already, such as intelligence gathering. Perhaps the greatest cost to be incurred would be in the currency of credibility, should failure occur, rather than monetary. Balanced against an expensive and uncertain war on terror, the downside risks of deterrence strategy make it a concept worth investigating.

E.   COUNTER-ARGUMENTS

The entire premise of the deterrence theory formulated for this paper hinges on the belief that we are facing an enduring threat by radical Islamic terrorism, and that we need to continue devoting resources to this cause, albeit, perhaps more economically. Although few would argue the threat no longer exists on any level, many have said that the threat is overblown or exaggerated. With this in mind, a counter-argument to this (or any) proposal toward counterterrorism may be that grand spending is not necessarily warranted, justified, or rewarded in this direction.

John Mueller and Mark Stewart examined this issue in *Terror, Security, and Money.* They concluded after some stark analysis, that spending on homeland   security,   and   specifically   on   counterterrorism,   is   grossly

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[291] Department of Defense, *Deterrence Operations Joint Operating Concept Version 2.0,* 52.

disproportionate to the threat. They acknowledge that "like crime and vandalism, terrorism will always be a feature of life,"[292] but our investment in security "spectacularly" fails a cost-benefit analysis. It would be difficult to counter this argument at this point in time.

Using the analysis of the matrix presented above, we can begin isolate tailored and targeted measures toward sustainable CT practices. Zeroing in on denial, disruption and punishment, we find strategies that not only may be most efficient and effective, but economical. As offered in the Data chapter, many actions taken toward denial and disruption require little capital, but instead targeted counters based on the psychology of terrorism. Additionally, punishment costs are minimized as opposed to defeating and crushing, because they are only employed in retaliation for an attack, or some other hostile action. Otherwise, the primary activity revolves around credible communication of retaliatory intentions.

A very different, but still critical consideration is the employment of deterrence strategies within the scope of "American values." The subject of Uri Fisher's paper "Deterrence, Terrorism, and American Values" focused on this concern. He postulated, "the requirements to deter individuals within a terrorist system will force policymakers to compromise some very basic and sacrosanct American values."[293] However, Fisher goes on to say that the best example of the tension is 'targeted killings.'[294] In his argument, "the lives of individuals within a terrorist organization represents one of the few assets that the United States may be able to hold at risk…"[295] With the use of drone strikes, not only is that horse out of the barn, but one of the central propositions of this paper, and a feature that was born out in the analysis above, indicates that this is not the case.

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[292] Mueller and Stewart, *Terror, Security, and Money,* 173.

[293] Fisher, "Deterrence, Terrorism, and American Values," 10.

[294] Ibid.

[295] Ibid., 11.

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V. STRATEGIES: UNCONVENTIONAL THREATS AND OFFSETS

The analysis above suggests the prospect of deterrence as a strategy potential for the long war on terrorism. As evidenced and discussed, there have been innumerable strategies presented toward the war on al Qaeda, radical Islamic terrorism, and terrorism more broadly, and in support of homeland and national security. Though an evolution, to some degree, of thinking in the direction of deterrence of transnational terrorism has been detailed above, the evidentiary conclusion is that, although the concept has steadily gained momentum, it remains an elusive policy.

This section seeks to elucidate further the strategy of deterrence by examining radical Islamic terrorist organizations in the context of "complex adaptive systems" and their brand of modern terrorism as a "disruptive technology." Additionally, if viewed as a complex adaptive system itself, the homeland security enterprise should adopt befitting counter-strategies. By applying some of the founding concepts in these areas toward the problem of an enduring terror threat, we may:

- Gain a nuanced, but objective perspective from which to approach the problem

- Discover a path to appropriate solutions toward implementation issues.

The end goal of this section is to reveal cogent reasoning toward implementing a strategy, which appropriately includes tailored deterrence. The game-changing realities of technological innovations will be reviewed with respect to use by terrorists, and then set in context toward strategy objectives. A summarization and synthesis of strategy routes and recommendations will be offered in the final chapter under "Findings, Conclusions, and Recommendations." The issues of implementation of have either already factored in the lack of progress in creating effective deterrence policy, (and)/or

are likely to arise going forward. These notions will also be more completely fleshed out in the final chapter.

A. DISRUPTION HARNESSED BY "THE FEW"

In "The Power of 'the Few:' A key strategic Challenge for the Permanently Disrupted High-Tech Homeland Security Environment," Rodrigo Nieto-Gomez distinguishes between the bifurcated mission of the homeland security enterprise in an increasingly complex environment.[296] He argues that the current approach is generally appropriate for "an incremental or 'systemic mission,' but that a new model is needed for the "disruptive or 'future shock mission;'" one which is "better adapted to confront the negative effects of disruption by fostering and harnessing the positive ones."[297] "The power of the few" refers to the changing paradigm arising as, "technology has lowered the barriers to entry for disruption."[298]

The concept of disruptive technology was popularized by Harvard business professor Clayton Christensen, who noted a pattern whereby solid, well-run companies would fold, or at least lose out substantially to upstarts who, because of their flexibility and lack of accountability, were able to embrace and run with an innovation.[299] Because this new technology changed not only the industry it served, but other aspects of society, it was seen as "disruptive." A few of the many examples would be the internal combustion automobile, atomic bomb, personal desktop computer, and health maintenance organization.

Sustaining technologies, the more common kind, "improve the performance of established products, along the dimensions of performance that mainstream customers in major markets have historically valued."[300] An

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[296] Rodrigo Nieto-Gomez, "The Power of 'the Few:' A Key Strategic Challenge for the Permanently Disrupted High Tech Homeland Security Environment," *Homeland Security Affairs Journal,* 7, no. 18 (December 2011).

[297] Ibid., 2.

[298] Ibid.

[299] Clayton M. Christensen, *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (New York, NY: HarperCollins Publishers, 2007), Kindle edition.

[300] Ibid., 24.

important distinction is that with this more prevalent technological advancement, changes occur incrementally (not necessarily slowly, though), whereby "disruptive innovation can and often does change the environment in unexpected ways, disrupting the rules that governed what seemed, for a while, a stable ecosystem."[301] The other keys to this, which will be explored further in the closing of this chapter, are the influences of "mainstream customers" and "major markets."

1. 9/11: Disruptive Innovation

Using the 9/11 attacks as a prime example of "the few," Nieto-Gomez concludes: "It is no longer true that technological innovation requires a heavy investment to manipulate nature and produce a result capable of having an impact in the real world…"[302] Whereas he attributes this to recombination of incremental technologies—stopping short of naming the attacks as disruptive in nature,[303] military theorist, Navy Captain Terry C. Pierce calls 9/11 a "classic disruptive innovation": "The terrorists took existing technology that we invented—airliners—and turned them into bombs. Terrorists are using other technologies we invented—the Internet, mobile phones, instant messaging—that have global reach. But they are using them in much different ways than we anticipated."[304]

Strategist and academic John Arquilla, David Ronfeldt, and Michele Zanini identified this trend several years earlier, and prior to 9/11:

> Middle Eastern terrorist groups provide examples of information technology being used for a wide variety of purposes. As discussed below, there is some evidence to support the claim that the most active groups—and therefore the most decentralized groups—have embraced information technology to coordinate activities and disseminate propaganda and ideology. At the same time, the

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[301] Nieto-Gomez, "The Power of 'the Few,'" 5.

[302] Ibid., 6.

[303] Other terror attacks, such as the 2005 London and 2004 Madrid bombings, are explicitly deemed "not disruptive in nature."

[304] Terry C. Pierce, "Rethinking Innovation: Disruptive Technology and Strategic Response," *Strategic Insights* IV, no. 4 (April 2005).

technological assets and know-how gained by terrorist groups as they seek to form into multi-organizational networks can be used for offensive purposes—an Internet connection can be used for both coordination and disruption. The anecdotes provided here are consistent with the rise in the Middle East of what has been termed *techno-terrorism,* or the use by terrorists of satellite communications, e-mail, and the World Wide Web.

Arab Afghans appear to have widely adopted information technology. According to reporters who visited bin Laden's headquarters in a remote mountainous area of Afghanistan, the terrorist financier has computers, communications equipment, and a large number of disks for data storage. Egyptian "Afghan" computer experts are said to have helped devised a communication network that relies on the World Wide Web, e-mail, and electronic bulletin boards so that the extremists can exchange information without running a major risk of being intercepted by counterterrorism officials.[305]

The consistency between this passage, and the views of Nieto-Gomez and Pierce underscores the central tenet that terrorists have embraced and adapted technology toward their own nefarious purposes, which not only leads to the proposition being put forth here—that some forms of modern terrorism are disruptive technologies—but bolstered the thesis of Nieto-Gomez's paper.[306] "The power of the few" argues that:

New technologies, especially disruptive technologies, come with new recombining potential. Because "the few" have better adaptivity than "the many," small groups can take advantage of unforeseen consequences of the new altered environment more rapidly than authorities can identify a new potential threat and react to it.[307]

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[305] John Arquilla, David Ronfeldt, and Michele Zanini, "Networks, Netwar, and Information-Age Terrorism," in *Countering the New Terrorism,* ed. Ian O. Lesser, Bruce Hoffman, John Arquilla, David Ronfeldt, Michele Zanini and Brian Michael Jenkins (Santa Monica, CA: RAND Project Air Force, 1999), 64–65.

[306] A second point of interest comes from noting the almost archaic terminology used in the 1999 article. In many ways, this confirms the rapid pace of change that has taken place and the runaway train that technology is riding.

[307] Nieto-Gomez, "The Power of 'the Few,'" 8.

2.   Complex Adaptive Systems

It is important to recognize and understand the terror groups being discussed here in the context of complex adaptive systems, because this basis will offer strategy solutions that would otherwise be less salient toward random or chaotic nemeses, or perhaps rigidly organized groups, and therefore less applicable.[308] For instance, "extreme responsiveness to small actions is one of the hallmarks of complex adaptive systems,"[309] a point of consideration toward counter-strategies.

Complexity science arose from chaos theory, when it became apparent over time that even complex systems might exhibit patterns of behavior.[310] The benefit of recognizing complex systems, is that while they "do not allow precise prediction of specific events or outcomes of intervention, they do focus attention on the system, rather than simply the parts."[311] "Complex systems, under certain conditions, can be complex adaptive systems, self-organizing and perhaps moving to higher levels of system performance."[312]

It is difficult to otherwise define complex adaptive systems without using the component terms, such as: "a type of system—albeit a complex one—capable of adaptation."[313] Davis and Jenkins offer contextual description: "The terrorist problem occurs in a rich context with many interacting entities and

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[308] Anne-Marie Grisogono, "What do Natural Complex Adaptive Systems Teach us About Creating a Robustly Adaptive Force?" Presented at the 9th International Command and Control Research and Technology Symposium, Defence Science and Technology Organisation, South Australia, 2009.

[309] Judith E. Innes and David E. Booher, *Planning with Complexity: An Introduction to Collaborative Rationality for Public Policy* (London, UK: Routledge, 2010), Kindle edition, 184.

[310] Innes and Booher, *Planning with Complexity.*

[311] Ibid., 188.

[312] Innes and Booher, *Planning with Complexity.*

[313] Dale E. Lichtblau et al., "Analyzing Adversaries as Complex Adaptive Systems," *Institute for Defense Analysis*, 2006, 12.

processes. Some aspects of the system are hierarchical; others are distributed; still others are networked. Terrorist systems adapt over time."[314]

Knopf explains that "thinking of al Qaeda as a system opens the door to deterrence by punishment."[315] Using the principal of *indirect deterrence*, "not aimed at attackers themselves, but at third parties whose actions could affect the likelihood that a potential attacker can or will carry out and attack,"[316] the system provides solutions despite its complexity.

B.   COUNTER-STRATEGIES FOR SYSTEMS

If, as Nieto-Gomez posits, technological innovation offers "the few" unprecedented opportunity at disruption, and "the few" are embedded into complex adaptive systems, then what counter-strategies may be offered? Donella Meadows concludes *Thinking in Systems* with what she hoped were 'systems wisdoms,' beginning by exhorting the reader to watch first how a system behaves before disturbing it.[317] "Starting with the behavior of the system directs one's thoughts to dynamic, not static, analysis—not only to 'What's wrong?' but also to 'How did we get there.'"[318] Adding to this point, Nieto-Gomez cautions, "…the homeland security environment should be understood as a chaotic system where long term planning is very difficult and forecasting is in reality impossible."[319]

Traditionally, policy formulation is seen as a linear process. "It is an input/output system, where we can examine each of the inputs and predict the impact on the system."[320] But viewed through the lens of complexity science, we

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[314] Davis and Jenkins, *Deterrence and Influence in Counterterrorism*, 13.

[315] Knopf, "The Forth Wave in Deterrence Research," 11.

[316] Ibid.

[317] Donella Meadows, *Thinking in Systems* (White River Junction, VT: Chelsea Green Publishing, 2008), Kindle edition.

[318] Ibid.

[319] Nieto-Gomez, "The Power of 'the Few,'" 3.

[320] Innes and Booher, *Planning with Complexity,* 187.

are able to distinguish that "trying to describe the current state of the homeland security environment is a flawed approach to developing a strategy, mainly because the current state is just an instant in the evolution of this complex and randomized system."[321]

For Nieto-Gomez, although the "'systemic mission' of neutralizing incremental threats seems to be fulfilled in an acceptable way by the current homeland security institutional model," the wicked threat "posed by the recombining of disruptive technologies" looms.[322] The prescription for this, at the risk of oversimplifying, is fighting fire with fire. That is, "homeland security institutions addressing the 'future shock mission' have to be able to be proactive and become disruptive agents themselves."[323]

This is a departure from previous recommended strategies, such as by Arquilla and others, prior to 9/11:

> The key task for counterterrorism, then, is the identification of organizational and technological terrorist networks. Once such structures are identified, it may be possible to insert and disseminate false information, overload systems, misdirect message traffic, preclude access, and engage in other destructive and disruptive activities to hamper and prevent terrorist operations.[324]

Years later, Pierce addressed the "netwar"[325] or terrorist technological conundrum by offering:

> With the Internet and mobile phones and instant messaging, our enemies have moved up to yet another asymmetrical level, which you could call a virtual level of warfare. We can't see it until it

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[321] Nieto-Gomez, "The Power of 'the Few,'" 4.

[322] Ibid., 13.

[323] Ibid., 14.

[324] Arquilla, Ronfeldt, and Zanini, "Networks, Netwar, and Information-Age Terrorism," 81.

[325] John Arquilla and David Ronfeldt, *Networks and Netwars* (Santa Monica, CA: RAND Corporation, 2001).

decloaks itself to send a message or to attack…should be focusing (on) developing precipitating technologies.[326]

And one conclusion of a Rand study, contemporary to "the few," on the exchange of technology among terror groups was, "…the U.S. government should disrupt innovation processes and reduce the potential for a successful exchange of technology" (between terrorist groups).[327] The difference in strategies is clear. Nieto-Gomez reveals that this reactive approach to a rapidly changing and therefore chaotic environment is insufficient:

> Homeland security institutions are supposed to "connect" the proverbial dots to anticipate all the threats and vulnerability scenarios that have not yet happened, might never happen, but are morphing rapidly because of the complex nature of the recombining of technologies (old and new), and then patch security holes, before clandestine actors can exploit them.[328]

C.   MODERN TERRORISM AS DISRUPTIVE TECHNOLOGY

"Disruptive innovators take existing or new technologies and link them in a novel way or architecture or doctrine."[329] The masterminds of 9/11 were, therefore, disruptive innovators. Yet, although their goal of bringing down the towers was the same as one net effect of the 2001 attack, the 1993 World Trade Center co-conspirators were not. Is this because they failed in their mission or because they failed to innovate? It could rightly be argued that the truck bombing of a building, albeit a big one, is an incremental improvement on terrorist technology. It could also be properly delineated that the miscalculation in the effect of the explosion is irrelevant to the discussion of disruptiveness, and therefore it was not the success or failure of the attack.

However, let us imagine the 9/11 hijackers failed to achieve direct hits on their targets, say they miscalculated cross winds and scored only glancing blows

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[326] Pierce, "Rethinking Innovation."

[327] Kim Cragin et al., *Sharing the Dragon's Teeth: Terrorist Groups and the Exchange of New Technologies* (Santa Monica, CA: Rand Homeland Security, 2007), xvi.

[328] Nieto-Gomez, "The Power of 'the Few,'" 10.

[329] Pierce, "Rethinking Innovation."

on the towers and came in too high or low on the Pentagon, netting four crashed airliners, but little other structural damage. Disruption? Probably. Moreover, the reason is that the tsunami of change would have still occurred to a large extent. It may also be argued, then, that had World Trade Center bombing plan worked as desired, the world would have changed on February 26, 1993, instead of September 11, 2001.[330] That being the case, the technological innovation rests at least as much on the parameters of terror attacks as it does on the specifics of technology employed.

Thus, while it may be that the majority of terror attacks fall under the umbrella of incremental innovations—a suicide bomber in a crowd, train and plane bombings, kidnappings and assassinations[331]—the *potential* evidenced by modern radical Islamic terrorism—Beslan, 9/11, Mumbai—constitutes disruptive technology of itself, and regardless of technological specifics of techniques. In other words, it is the large "t" technology rather than small "t" that makes this so. Explosives remotely controlled by cell phone on a plane—incremental; the same explosives sewn inside a living person—disruptive. Assassinations of political figures, military personnel, or a particular religious or ethnic group—incremental. Assassinations of children taken hostage in a school—disruptive.

The common denominator for modern terrorism as disruptive technology is radical Islamic terror—as evidenced in the examples above. Jenkins traces the genesis of "contemporary" terrorism to the late 60s and early 70s, declaring, "Terrorist tactics have a long history, but contemporary international terrorism is a relatively recent phenomenon."[332] One of the factors that differentiates the modern, al Qaeda brand of terrorism from this broader era, has to do with what

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[330] See Rodrigo Nieto-Gomez discussion of "uchronia," Rodrigo Nieto-Gomez, "Preventing the Next 9/10: The Homeland Security Challenges of Technological Evolution and Convergence in the Next Ten Years," *Homeland Security Affairs Journal* 7, no. 2 (September 2011).

[331] Nieto-Gomez, "The Power of 'the Few.'"

[332] Jenkins, *Unconquerable Nation*, 7.

caused Jenkins to revise "terrorists want a lot of people watching, *not* a lot of people dead" to an *and* statement.[333]

The technology harnessed to perpetrate 9/11 was not new at that time.[334] Nor was suicide terrorism. It was the recombination of technologies that made it noteworthy. It was the willingness of 19 individuals to end their lives in concert that changed the parameters of *potential*. What were unimaginable potentials before have become possibilities. "Disruptive technologies bring to a market a very different value proposition than had been available previously."[335]

We can further test the hypothesis of this view by examining some known features of disruptive technologies (though the relative size of the sample leaves only a cursory opportunity):

- Innovations that result in *worse* product performance (at least in the near-term)

For terror attacks, this could be read as failed (or partially failed) plots: World Trade Center toppling, '93 vs. '01; Underwear bomber; printer cartridge bombing

- Typically cheaper, simpler, smaller, and, frequently more convenient to use

For terror attacks, consider smaller cells/lone wolves, and the attempted exploitation of the "cracks" in the system as opposed to more complex innovations.[336] Using the 2008 Mumbai siege as example, old/simple (guns, ieds, fire) and new/tech (cell phones, social media) were recombined in a way that was "more convenient" to exploit cracks in they security by small teams of attackers.

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[333] Brian Michael Jenkins, "The New Age of Terrorism," in *The McGraw-Hill Homeland Security Handbook*, ed. David G. Kamien (New York: McGraw-Hill, 2006), 119, http://www. rand.org/pubs/reprints/RP1215.html.

[334] Nieto-Gomez, "Preventing the Next 9/10,"

[335] Christensen, *The Innovator's Dilemma,* 24.

[336] One issue of *Inspire* online jihadist magazine featured a "cover story" that bragged of the inexpensiveness of the printer cartridge plot ($4,200).

D. STRATEGIZING BEYOND TECHNOLOGY

The problems posed by technological improvement and innovation by terrorists beget technological solutions, innovative or otherwise. Bruce Hoffman wrote in 1999, "A key factor contributing to terrorism's rising lethality is the ease of terrorist adaptations across the technological spectrum."[337] Intelligent and committed people of the homeland security enterprise, such as Captain Terry C. Pierce, seek to combat the threat with "precision technology" that may need to be "disguised" to stay ahead.[338] Cragin and others determined several modes to disrupt innovation among terror groups, including the targeting of familiar approaches, such as denial of safe havens, interruption of funding and elimination of key personnel.[339]

Approaches, such as these have been working reasonably well over the past decade, in securing the homeland from attacks. In an incrementally implemented chess match, application of vast resources may win the day. However, Christensen has demonstrated and we have seen that when facing asymmetrical market competitors: "They give customers more than they need or ultimately are willing to pay for. And more importantly, it means that disruptive technologies that may underperform today, relative to what users in the market demand, may be fully performance-competitive in that same market tomorrow."[340] In addition, trying to outspend "the few" is not the solution.

The 2010 Quadrennial Homeland Security Review (QHSR) seeks a path, pressing: "We must seek to foster a rich and wide-ranging capacity to identify and think through complex and unfamiliar problems and to formulate effective and inventive solutions spanning many difficult and varied operational contexts."[341] Rodrigo Nieto-Gomez answers this challenge with the solution of a

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[337] Hoffman, "Terrorism Trends and Prospects," 28.

[338] Pierce, "Rethinking Innovation."

[339] Cragin et al., *Sharing the Dragon's Teeth*.

[340] Christensen, *The Innovator's Dilemma,* 25.

[341] Department of Homeland Security, *Quadrennial Homeland Security Review*, 75.

Homeland Security version of Defense Advanced Research Projects Agency (DARPA), freed from constraints and disrupting the disruptors.[342]

Yet, if we accept the correlations between terror groups and the homeland security enterprise as organizations competing for product profitability—effective acts of terror versus safety and serenity—then offering modern forms of terrorism as disruptive technologies in comparison to the Homeland Security approach to business becomes problematic:

> By and large, a disruptive technology is initially embraced by the least profitable customers in a market. Hence, most companies with a practiced discipline of listening to their best customers and identifying new products that promise greater profitability and growth are rarely able to build a case for investing in disruptive technologies until it is too late.[343]

If the "least profitable customers" represent those marginalized individuals who may be led up the staircase toward terrorism by the appeal of the disruptive technology, and on the other hand, the homeland security enterprise continues on a path influenced by its "best customers," than what might the "too late" be? To take it one step further, if the United States is representative of a solid, powerful corporation, threatened by the disruptive innovation of "the few," then solving problems the way good companies do might be counterproductive. We know this from one of the central lessons in Christensen's study of the effects of disruptive technologies on top companies. Because his findings proved that doing all the right things, listening to customers and share-holders, employing sound strategies, does not work: "…*good* management was the most powerful reason they failed to stay atop their industries."[344]

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[342] Nieto-Gomez, "The Power of 'the Few.'"

[343] Christensen, *The Innovator's Dilemma,* 28.

[344] Ibid., 18.

1.   A Deterrence Strategy

Modern radical Islamic terrorist ideology, goals, strategies, and tactics intersect to form what constitutes disruptive technology. Application of a comprehensive, imaginative, and tailored deterrence policy is an efficient and effective way to counter this ongoing threat. The tailored deterrence does not seek to target individuals, but parts of a known system. "The distributed nature of transnational terrorist networks complicates the conduct of an effective deterrence campaign, but it also offers additional opportunities."[345] Knopf offers that in thinking of al Qaeda as a system, the opportunity for deterrence comes in targeting the "supporters and enablers of terrorism."[346]

The approach to instituting such strategy should be based on free input from a variety of disciplines, formed to be flexible or "living." Knowledge and lessons learned from top scholars in the field, as well as military strategists and intelligence specialists should be highly sourced; however, the bulk of the minds in the project should be from outside these specialties, to encourage innovation. Just about everyone and anyone in the political arena and battle-scarred homeland security enterprise, as well as those with competing interests (in the form of special interests/lobbyists) might be opposed to this track. Some pushback might come from the Islamic world also. This might be instructive in terms of attention to details, as well as determining if the course is the right one.[347] A pendulum swing to state-level conflicts, a substantial shift to terrorism motivated by substantially different ideologies, or the petering out of the radical Islamic threat are some wildcards that might affect this strategy.

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[345] Chilton and Weaver, "Waging Deterrence in the Twenty-First Century," 37.

[346] Knopf, "The Fourth Wave of Deterrence Research," 10.

[347] Loud cries from known Islamic fundamentalists associated with terrorists might be a positive sign.

E. DETERRENCE AS INNOVATION

We have seen how simply recombining existing technologies can create conditions so impactful that the resulting innovation becomes disruptive technology. In fact, the technology recombined in September 2001, all existed in 1973, though the "'9/11 idea' did not."[348] Thus, while technology innovation is often central to solving a problem like terrorism, innovation does not rest completely on higher and higher technology. Recombining deterrence policy in new ways might constitute an innovation, and if successfully implemented, disrupt the disruptive technology that is modern terrorism.

The rub comes from implementation of untested ideas into a complex adaptive system. Judith Innes explains, "…evocative ideas about systems are difficult to introduce into policy making because Newtonian physics has had such a deep impact on our way of thinking about the world."[349]

Given this, we may ask if we mean what we say. The QHSR was specifically "designed to serve as a catalyst to spur the continued evolution and maturation of our Nation's homeland security enterprise"[350] Strategic deterrence was re-introduced and accepted as a viable component of homeland security policy years earlier. Yet, rather than represent an "evolution" and "maturation," it has scarcely moved past a notion.

The incremental evolution of the homeland security environment over the past several years has taken us to this point. However, "the key to strategic management…is to sustain stability or at least adaptable strategic change most of the time, but periodically to recognize the need for transformation and be able to manage that disruptive process without destroying the organization.[351]

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[348] Nieto-Gomez, "Preventing the Next 9/10," 3.

[349] Innes and Booher, *Planning with Complexity,* 186.

[350] Department of Homeland Security, *Quadrennial Homeland Security Review*, 77.

[351] Henry Mintzberg, Bruce Ahlstrand, and Joseph Lampel, *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management* (New York, NY: Free Press, 1998), Kindle edition.

All indications are that a transformation is in order. "In the years ahead, the world will be filled with breathtaking technological changes, social advances, and an accelerating flow of ideas, goods, and people around the world. The advancements and global interactions will enrich and improve our lives, but they may also be exploited by, or may contribute to violent extremism."[352]

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[352] Department of Homeland Security, *Quadrennial Homeland Security Review*, 77.

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VI. FINDINGS, CONCLUSIONS, RECOMMENDATIONS

A. FINDINGS

The central argument of this research paper is that deterrence has been proven to be an effective security strategy, abandoned in post-9/11 policy, but worthy of reevaluation. The 2002 National Security Strategy states, "Traditional concepts of deterrence will not work against a terrorist enemy whose avowed tactics are wanton destruction and the targeting of innocents; whose so-called soldiers seek martyrdom in death and whose most potent protection is statelessness." Ten years later, this statement still rings true. However, what is offered in this thesis is something other than "traditional" deterrence, which specifically employs the conditions described in this statement toward the formation of "asymmetric" concepts of deterrence.

The United States was conducting some level of deterrence by denial even before 9/11, as we have seen that target hardening, intelligence gathering and sharing and other indirect steps make successful attacks more difficult to conduct. Despite the references to the abandonment of deterrence in the face of the asymmetrical threat that confronts us in the new century, a surprising amount of research, planning, and writing has gone into this very idea in the past decade.

The importance of the research arises from the costly war against terrorism as it has been conducted since 2001, which, furthermore, appears to have no end in sight. The costs have come in expenditures, casualties, and national stature. Deterrence may offer something more sustainable, safe, and sanitary.

What has been offered in this paper in review is that deterrence can be tailored, which comes from an understanding of the adversary, and that with regard to violent Islamic extremism, we know the adversary very well based on over a decade of national focus and dramatically increased funding toward that end. To this understanding was added an inquiry into relatable conflicts and

crimes, and a deeper review of the aspects of deterrence. Taken together, these formed the data that was applied to an analysis.

Using some foundational parameters, including the framework provided by Davis and Jenkins a decade ago, an analysis was conducted on tailored deterrence. Based on the various options, it was determined that some form of deterrence would present applicable CT choices for the various components of the radical Islamic terror systems. Additionally, the incorporation of the special cases of suicide bombers and lone wolves completed the threat portrait. Generally, those strategies comprising the middle part of the deterrence spectrum—denial, disruption, and threaten—were shown to be effective and most practical, economical, and palatable.

Yet something more seems necessary to overcome the inertia with regard to instituting deterrence policy. What is needed is innovation in using all that is known of the adversary and the practice of deterrence. Chapter V offered one course by examining the problem in the context of systems. It was posited that if we view Islamic terror groups as complex adaptive systems, and the terror strategies and acts as disruptive technologies, then we may be able to formulate counter-strategies more suited to the threat.

The suggestion is that tailored deterrence is an appropriate counter, if we look at the systems view as an opportunity. The stealthness and innovation of the conduct of terror merits an opposing imaginative and disruptive response. The hope is that from this perspective, implementation of tailored deterrence might be realized in actual policy, rather than in the realm of suggestive direction.

B. CONCLUSIONS

- Support for use of deterrence strategy to counter the terrorist threat has strengthened over the last decade.

Growing support was most evident in the review of the literature, in particular, national security reviews and strategies. However, actual policy implementation has been all but nil.

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- Terrorism deterrence requires careful target analysis and a tailored application.

For the same reasons that deterrence was once dismissed as a counter-terror strategy, the work comes in the target tailoring. This may prove to be a stumbling block to implementation.

- Deterrence policy should be formulated with reverence for American values.

This point was widely stated among authors and thinkers and universally agreed upon. This course should be overtly stated and continuously transparent.

- The United States must earn and maintain a strong reputation for credibility as it is an indispensable component of deterrence.

Say what you mean and mean what you say. Anything less will be exploited by terrorist leaders and recruiters.

- The cost of failure may be measured in credibility rather than dollars

The policy risk may be felt more in national reputation than associated costs in kinetic operations. This may be politically less appetizing.

- The efficacy of deterrence strategy may be difficult to analyze

It is difficult to measure if a threat is effective. Often, little evidence is available other than the lack of attack(s), which is almost impossible to pinpoint to a cause.

- Policy makers may avoid the tool of deterrence because it is difficult to test.

Policy makers are politicians who seek measurable results that they can point to. Interest may also swing based on a low-risk downside, however.

- Deterrence should be a prominent part of U.S. policy

Emphasis on both "prominent" and "part."

C. IMPLEMENTATION

One way to implement deterrence strategy might be to evolve or recast some of the Homeland Security information sharing initiatives toward constructing and disseminating specifics. These programs cover the spectrum of agencies, which would serve to offer a breadth of ideas, experiences, and information conduits. Information sharing has probably already pinnacled in many segments and it has been offered that connecting dots in a complex adaptive environment is less valuable than once thought.[353] If earnestly instituted, deterrence policy can offer a solution to the growing menace of "the few" in a sustainable way.

Having recognized time and again the innovative savvy of our terrorist adversaries, it is time that the U.S. government determines to fight fire with fire. Playing the game better is a solution to overcoming disruptive innovators. "Combinatorial evolution of technology does not have to favor the illicit appropriator. This randomized environment created by the accelerated pace of technology cycles will favor those who can produce more ideas, and ride the wave of uncertainty instead of opposing it."[354]

D. RECOMMENDATIONS

Our primary research question—how can the United States make better use of deterrence strategies in ongoing CT efforts?—can begin to be addressed in the following ways:

(1) Promote Wise Use of Deterrence. Deterrence should be an explicitly and prominently stated objective of national strategies, in keeping with the stated hypothesis—*deterrence strategy as an element of counterterrorism policy should be as specific and overt as possible/practical in order to be effective*—and as supported by the findings here. Furthermore, the U.S.

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[353] Nieto-Gomez, "The Power of 'the Few.'"

[354] Nieto-Gomez, "Preventing the Next 9/10," 4.

government and homeland security enterprise must find creative and credible ways to convey deterrents to the parts of the terrorist organizations that we seek to influence. Knopf's offered, "One especially innovative suggestion that merits follow-up research involves using information or discourse as a source of influence," in summary of his review of the "Fourth Wave of Terrorism Research."[355] The increasing use and success of social media by terror groups underscores this point. The United States should commit assets to these tasks.

(2)   Seek Carrot Opportunities. As a next step to the implementation of deterrence by denial, disruption, and threat, we should seek avenues for encouraging restraint/low end of scale possibilities. The goal should be a gradual transition to positive inducements from the punishment strategy to which we are accustomed. START's Laura Dugan and her associate Erica Chenoweth have found their research, "suggests that rewarding good behavior, as opposed to punishing the bad, could be an effective form of counterterrorism."[356] Although they term this "beyond deterrence," it could be viewed toward the low end of the spectrum and should be further exploited toward overall policy.[357]

(3)   Adapt Additional Terror Applications. Once enacted, measured, and evaluated, innovative deterrence policy should be adapted and tailored toward all terrorism and other asymmetric threats faced by the United States, including right wing, eco-terrorism, and other non-radical Islamic transnational threats.

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[355] Knopf, "The Forth Wave in Deterrence Research," 2–3.

[356] Laura Dugan, "Discussion Point: Thinking Beyond Deterrence," START, April 29, 2013, http://www.start.umd.edu/news/discussion-point-thinking-beyond-deterrence.

[357] Laura Dugan and Erica Chenoweth, "Moving Beyond Deterrence: The Effectiveness of Raising the Expected Utility of Abstaining from Terrorism in Israel," American Sociological Review 77, no. 4 (August 2012): 597–624, http://asr.sagepub.com/content/77/4/597.abstract.

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